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ABSTRACT

The guide to success in college is designed to help college-bound students and college freshmen develop effective study habits, develop positive attitudes toward learning, and improve specific study skills. It is divided into five units. The first emphasizes positive study habits and attitudes, looking at how to avoid poor performance, outlining principles of time management and memorization techniques, and presenting some basic information about the college environment and the people in it. The remaining four units stress improvement of these specific study skills: (1) classroom listening, including notetaking, distinguishing between main ideas and supporting details, and differentiating facts, inferences, and judgments; (2) reading a college textbook, including understanding the organization of information, interpreting signal words and the author's tone, and increasing reading speed; (3) test-taking, by predicting test questions, studying old tests for patterns and clues, using contextual clues, and understanding essay tests; and (4) word attack, using contextual clues and analyzing word parts. The fifth edition of the instructor's manual (ISBN-89917-492-2) is included. (MSE)

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HOW TO SURVIVE AT COLLEGE

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by Sara Jane Coffman

Sixth Edition

HOW TO SURVIVE AT COLLEGE

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by
Sara Jane Coffman

College Town Press
P.O. Box 669, Bloomington, Indiana 47402

Sixth Edition

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PREFACE

How to Survive at College is designed to help you do three things: develop effective study habits, develop positive attitudes toward learning, and improve specific study skills. Although the book was written for college freshmen, the information presented can also be helpful to high school students who want to prepare themselves for college work. The book is also highly recommended for college students who are not doing as well as they would like, or students who would like to improve their grades. Finally, students returning to school after having been out for awhile can use this book to brush up on their skills and get back into the habit of studying.

The book is divided into five units. The emphasis in the first unit is on developing positive study *habits* and *attitudes*. You'll learn why some students do poorly in college and how you can avoid poor college performance. You'll learn some principles of time management and some specific memorization techniques. You'll also learn some basic information about your college or university—the terminology used there, why it's important to get along with your professors, and where you can go for help with personal and academic problems.

The remaining four units will help you improve specific study *skills*. In Unit II, you'll improve your classroom listening skills by learning to apply Nichol's ten guides to effective listening. You'll learn what to write down in a lecture, what *not* to write down, and how to use abbreviations when taking notes. This unit will also show you how to distinguish between main ideas and supporting details and to distinguish among facts, inferences, and judgements.

In Unit III, you'll learn the SQ3R method of reading a college textbook. The importance of organizing what you read by underlining, outlining, and taking notes will be discussed. You'll learn how signal words and author's tone can give you valuable information when you read. And finally, you'll learn some techniques for increasing your reading speed.

Unit IV deals with improving your test-taking skills. You'll learn to predict test questions, to study old tests for patterns and clues, and to use contextual clues within a test to help locate the correct answer. Also included in this unit is a section on essay tests where you'll learn to interpret the directions of an essay test, to evaluate an essay answer, and to write a good essay answer.

The final unit is devoted to helping you improve your word attack skills. Instead of skipping words that you don't know when you run across them in your reading, you'll learn to guess at their meanings by using clues in the surrounding sentences. You'll also learn to break new words down into their word *parts* and determine the word's meaning by inserting the meaning of the word part.

Several people aided considerably in the development of this book. My deepest thanks go to Richard O. Forsythe, Director of the Center for Instructional Services, and to Earl B. Notestine, Associate Dean of the School of Humanities, Social Science and Education at Purdue University, for their unlimited help and encouragement.

My thanks also to the Dean of Students Office, the HSSE Learning Center, and Doctors Reece McGee and Joseph Rubinstein for their suggestions and input.

UNIT I

HOW TO SURVIVE THE FIRST FOUR WEEKS

INTRODUCTION TO THE UNIT

Although this is a book on how to improve your study skills, there's more to college than simply knowing how to study. To do well you must be highly motivated, know *why* you're in college, be able to get along with people, and know how to manipulate the system. It also helps if you have an absence of personal and financial problems.

The purpose of this unit is to help you begin college on the right foot. Specifically, we'll consider how to survive the most critical time—the first four weeks of the semester (or the first two weeks if you're on the quarter system). It's during this time that you'll impress your professors in either a positive or a negative way.

Also, students who fail courses in college usually do so within the first four weeks. That's because they fall behind in their work and are unable to catch up. Most importantly, the first several weeks of college is the time when you'll establish many of your study habits, and whatever habits (good or bad) you acquire now, you'll probably keep throughout the rest of your college career.

Actually, we're not just talking about college. The habits and attitudes you develop now will stay with you throughout life. There's little or no difference betweeen learning how to get along with a professor and learning how to get along with an employer. The self-discipline needed to get up in the morning and attend your classes is the same self-discipline you'll need on a job. Assignment due dates are the same as job deadlines.

The four years you spend in college will greatly determine the kind of person you're going to be. During this time, you should make a conscious effort to find out everything you can about yourself. Discover what kind of people you like to be with, how you like to spend your money, and what you like to do in your spare time. Learn your strengths and weaknesses. Polish your communication skills. Learn to entertain people, to listen to them, and to persuade them to do things your way. Learn how to get along with your peers as well as with people in positions of authority. Above all, make an effort to establish work habits that will enable you to do your work quickly and efficiently so that you'll have time to do all of the things that life has to offer.

UNIT OBJECTIVES

At the completion of this unit, you should be able to:

1. Gather information regarding your instructors' names, office locations, office hours and phone numbers, and know how to reach your instructors in case of an emergency.
2. Explain exactly how you're going to be graded in each of the courses you're currently taking.
3. Answer a series of questions about a course syllabus, given a syllabus for a course on your campus. Explain the types of information a course syllabus usually contains.
4. Describe fifteen of the main reasons why students have trouble in college and offer solutions to those problems.
5. List five ways a student can get in trouble with a professor; list five student behaviors that professors like.
6. Explain what to do if you don't know what field you want to major in. Explain the system for changing your major.
7. List ten hints for the time students spend in class and ten hints for the time they spend outside of class.
8. Describe at least three options students have if they're doing poorly in a course.
9. Define the terms listed in the section on college terminology.
10. Figure a GPA using the grading system used at your university.
11. Explain seven considerations for setting up a study schedule and justify the use of one.
12. List the three stages of taking in new information, describe three things that can go wrong at each stage, and suggest how to prevent those things from happening.
13. Remember a list of twenty items by:
    (a) making a mnemonic device
    (b) making a visual image
    (c) making a rhyme
    (d) using the alphabet
14. Provide a rationale for the use of mnemonics and visual imagery in learning course content.

STUDENT INFORMATION SHEET

1. Name _____
   (last) (first) (middle) (nickname)
2. Address _____
3. Phone _____
4. Work Phone _____
5. Year in school (freshman, sophomore, etc.) _____
6. Major field of study _____
7. Academic advisor _____
8. List the courses you are currently taking and indicate the number of credit hours per course.

   _____ _____
   _____ _____
   _____ _____
   _____ _____
9. Do you have a job? _____
   If so, where? _____
   How many hours per week do you work? _____
10. Do you plan to participate in any extra-curricular activities that will require a large amount of time? (e.g. football practice, pledging a fraternity or sorority, etc.) _____
    If so, describe _____
    _____
    _____
    How many hours per week do you plan to devote to this/these activities? _____
11. High school or college grade point average. _____
12. Are you currently on academic probation? _____
13. Have you ever been on academic probation? _____
14. List five of your strengths as a student.
    (a) _____
    (b) _____
    (c) _____
    (d) _____
    (e) _____
15. List five of your weaknesses as a student.
    (a) _____
    (b) _____
    (c) _____

(d) _____

(e) _____

16. List three short term goals. (Things you would like to accomplish in the next six months.)

(a) _____

(b) _____

(c) _____

17. List three long term goals. (Things you would like to accomplish in the next ten years.)

(a) _____

(b) _____

(c) _____

INFORMATION YOU NEED TO KNOW ABOUT YOUR CLASSES

At the beginning of every term, there's certain information you should obtain about each of the classes in which you're enrolled. This information includes such things as your professors' names, their office locations and office hours, and how they can be reached in case of an emergency. Since most students don't plan to have emergencies, many don't bother to collect this data. The chances are good, however, that at some time during the term, for one reason or another, you will need to reach one of your professors outside of class. Having this information at your fingertips will not only save you time, but in extreme cases, might make the difference between your passing a course or failing it.

The first piece of information you should collect for each course is your professor's name. This may sound obvious, but many students do not know the names of their professors. Also, learn how to spell your professors' names. This is simply a matter of common courtesy—after all, none of us enjoys having our name mangled or misspelled. Then, find out how your professors would like to be addressed. You may be able to discover their preference by keeping your ears open in class and listening to how other students address them. They may have their preferred title printed on the course syllabus, or you may need to ask them how they would like to be addressed.

It's important for you to discover where your professors' offices are located and what their office hours are. Office hours are specific times during the week that professors set aside to meet with the students in their classes. Even though you may find your professor in the office at other times, you should remember that most professors have responsibilities in addition to their teaching, so it may be wise to restrict your visits to their specified office hours. Once you get to know your professors, you'll be able to tell which ones welcome your dropping in to see them and which ones prefer that you make an appointment.

Some professors state their office hours as "by appointment only." Don't let that throw you. All that means is that if you want to see your professor, ask him or her (either before or after class) if there's a time when it would be convenient for you to stop by.

Your professors will probably tell you their office telephone numbers, so be sure to write them down. Many professors will also give you their home phone numbers and will encourage you to call them at home if you have a problem or a question.

Besides having your professor's name and phone number, it's a good idea to get the name and phone number of at least one other student in each of your classes. That way, if you ever have to miss a class, you can call someone to find out what happened. Be sure to find out if the professor made any special assignments while you were absent. Pleading ignorance of an assignment because of absence is no excuse in college.

It's also important to find out exactly how you will be graded in each of your courses. Will you be graded solely on your performance on tests? If so, how many tests will there be and when are they scheduled? Will there be a final examination? If so, will it be comprehensive? (That is, will it include the material covered in the entire course?) Will there be any quizzes in the course? Will they be announced or unannounced?

If it's an English composition course, how many themes will you have to write? Where will you write them—in class or out of class? When are they due? Are the ones that are written later in the course weighted more heavily than the ones that you write in the beginning? Will you be given any speeches or presentations? Will your attendance record have any effect on your final grade? How about your attitude and class participation?

This information is important so that you can monitor your progress throughout the term. If your professors don't explain their grading system, ask them about it. You'll be asking something that a lot of the other students in the class are wondering about as well.

INSTRUCTIONS FOR COMPLETING COURSE INFORMATION SHEETS

On the following pages are six forms entitled Course Information Sheets. They are designed to help you collect the information you need about your courses. Fill out one form for every class in which you're enrolled. To do a complete job, you will probably need to:

1. examine your course syllabi,
2. check with other members of your classes, and/or
3. ask your professors for assistance.

COURSE INFORMATION SHEET

Course Abbrev. and No. _____ Instructor _____

Course Title _____ Office No. _____

Office Phone No. _____ Office Hours _____

Name and phone no. of another student in the class _____

Exactly how will you be graded? (papers, tests, quizzes, etc.) _____

_____

_____

_____

COURSE INFORMATION SHEET

Course Abbrev. and No. _____ Instructor _____

Course Title _____ Office No. _____

Office Phone No. _____ Office Hours _____

Name and phone no. of another student in the class _____

Exactly how will you be graded? (papers, tests, quizzes, etc.) _____

_____

_____

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_____

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Course Title _____ Office No. _____

Office Phone No. _____ Office Hours _____

Name and phone no. of another student in the class _____

Exactly how will you be graded? (papers, tests, quizzes, etc.) _____

_____

_____

_____

COURSE INFORMATION SHEET

Course Abbrev. and No. _____ Instructor _____

Course Title _____ Office No. _____

Office Phone No. _____ Office Hours _____

Name and phone no. of another student in the class _____

Exactly how will you be graded? (papers, tests, quizzes, etc.) _____

_____

_____

_____

PLANNING AHEAD: READING YOUR SYLLABI

The course syllabus is a document that you'll receive from your professors at the beginning of every term. A syllabus provides information about the course policies and procedures. It also gives an outline of the course content and a day-by-day account of what will be happening in the class.

Most syllabi will tell you:

1. the course objectives (what you will be able to do at the end of the course that you aren't able to do now)
2. the professor's office hours
3. the title of the textbook
4. the professor's grading policy
5. the professor's attendance policy
6. if any of the class meetings will be cancelled or if the class will be meeting in a different location
7. test and quiz dates
8. when major assignments (such as speeches or term papers) are due.

There are several reasons to read through your syllabi carefully at the beginning of the course. First, after reading the syllabus, you may decide that you're not interested in taking the course. Second, it may save you from some embarrassment, like showing up on a day that's been cancelled, or showing up unprepared on a day when a test has been scheduled.

Once a professor provides you with a syllabus, he or she expects you to read and follow it without any further prompting. Since your doing well in college depends to a great extent on how well prepared you are, you need to keep your syllabi handy and refer to them often.

The first two pages of a sample college syllabus appear on pages 10 and 11.

INSTRUCTIONS FOR PLANNING AHEAD

Carefully examine your course syllabi. As you look at the content, determine which topics you already know something about. Does the course look like it's going to be hard or easy? Do any of the topics overlap? That is, will you be studying any of the same topics in more than one class?

After you've examined your syllabi, go through them again and make special reference to quiz and test dates. To get an idea of when your busy times are going to be during the term, transfer your test dates to the calendars on pages 13 and 14. Start by putting the name of the month on the top line of each calendar. Then find out which day of the week the first of the month is on, and fill in the days of the month. Lastly, write in your test dates for each of your courses.

SAMPLE COLLEGE SYLLABUS

More Than You Wanted To Know About SOC 100 – Division II
Course Syllabus, Spring 198-

General Information

Class meetings:	1:30 MWF EE 129
Instructor: (Div. II only)	Professor Reece McGee 356 Stone Hall Telephone: 494-4707 Office hours: 3:00-4:00 MWF, or by prior appointment.
Course Tutors:	Frankie Lam Kusuma Obalappa Tim Johnson 331 Stone Hall (The Soc 100 Tutorial Room) Office hours as scheduled on separate handout
Texts:	Required: Rodney Stark, *Sociology* (Wadsworth Publishing Co., 1985) Recommended: Caral A. Mosher, *Sociology Study Guide* (Wadsworth Publishing Co., 1985)
Course Objective:	(1) to provide a general survey of the basic concepts and organizing ideas of sociology for the student who is not a social science major but who may find sociological material of personal use for comprehending and dealing with his society; (2) to provide a foundation of elemental ideas and understandings for the student who may become a major in any of the social sciences.
Important Note:	The course is organized according to the structure of the book. To get the most of it, it is important that you have read the chapter(s) assigned for the week *before* attending lectures. Lectures all relate to the general topic of the week's assignment in the book but are not taken from the book and may not be related to one another.

Course Policies and Procedures

Examinations: There are three examinations in the course, given at indicated times during the term and in the final examination period. Each is a fifty item objective test covering the materials shown boxed off on the lecture calendar. Semester grades are based on total accumulated scores on the exams, although exams themselves are not cumulative. (That is, no exam includes review material from the previous set of assignments.) Grades will be "curved" in a manner to be explained in class. Persons bringing "Walkman"-type or other electronic devices to examinations will not be admitted and will not be permitted to make the exam up. All examinations are given in the Hall of Music, and will be administered in common with Professor Bain's Division I of the course, although the actual exam for Division II will not be the same as that for Division I. For this purpose, the Hall will be divided down the middle with Bain's class, Division I, seated *on the left* as you enter the auditorium, and McGee's class (yours, Division II) *on the right.* You must be seated in the proper section to take the exam and you will be scored on whatever exam you take. The two divisions use the same textbook but do not have similar lectures or tests, so it is important that you sit in the proper section.

Special Note on the Third Exam: The third exam in the course is scheduled during the final exam period. It is not a comprehensive final exam, but will be given at the regular final time. The exams for Soc 100 are scheduled by the University Office of Schedules and Space; the course staff and department have no control over them. *Thus you should plan to remain on campus throughout the final exam period. Do not plan weddings, trips, etc. for the end of that week; you cannot be excused from the examination or examined early for such purposes.* The final exam schedule for the university is published about March 1; we will announce the exact date of the exam at that time.

Attendance at Exams: You are not required to take any exam but your grade is a cumulative total. Absence from exams may be excused (for make-up purposes) only for medical reasons supported by a physician's report, or participation in scheduled University activities. When possible, arrangements for absence should be made ahead of time. *Unexcused absences from exams may not be made up.* You will note on the lecture calendar that we ask you to bring your I.D. card to exams, and a number 2 pencil. Persons without I.D.s will be fined one point at the first exam, two points at the second, and

three at the third. Fines are doubled for repeaters. Persons who do not make proper arrangements for make-ups may be fined up to one letter grade for the exam if they are permitted to make it up. Missed exams must be made up within two weeks of the date of the exam.

Make-up Work, Extra Credit, Change of Grade, Incompletes: Examinations are the only course work for SOC 100 which need to or may be made-up. This may be done only for official or "legal" reasons for absence. There is *no* extra-credit work for the course. If you wish to improve your grade after the first exam or two, your time is best and most efficiently invested in extra study. Making this investment from after Exam I until the end of the term is more productive than waiting until after Exam II to do so. Grade changes are made *only* in the relatively rare cases that grades are calculated or reported erroneously. Grades of "incomplete" *must* be arranged before Exam III and will be given only under the conditions stipulated for them by university regulations. You must be passing to receive an "I" grade. Incomplete grades must be made up by the 12th week of the second subsequent semester.

Lecture Attendance: Is not required, but research on the course has shown that regular attendance is highly correlated with grade in the course. All examinations cover lectures as well as reading material, with a weighting of 40% on lecture. Students registered in the course are responsible for announcements made in lecture; we have no other way of reaching you. It is strongly recommended that you have looked over the reading assignment for the week before attending lecture. All lectures are related to the reading assignments, but may not be related to one another.

The Tutorial Room: The Department of Sociology/Anthropology maintains Room 331, Stone Hall as a tutorial study hall for the use of SOC 100 students. The TAs keep regular office hours there on a schedule which will be distributed shortly after classes begin. Please feel free to visit the room at any time during "open" hours to discuss assignments or problems, get study help, etc. Exam grades are posted in the hall beside the Tutorial Room, and keys to the exams, old exams, etc., are available there.

Professor McGee: Keeps regular office hours (see p. 1) and is happy to make appointments for those who cannot see him during those hours. Please feel free to speak with him about any problem tutors cannot handle or to discuss lecture or text materials. *You* have first priority during office hours. Please do *not,* however, expect to see him at other times without appointment, and do not call him at home. He will not discuss class business over the phone and there is no emergency (such as illness before an exam) which cannot be handled through regular channels in the Student Hospital or Dean of Student's Office.

Scholastic Dishonesty: Scholastic dishonesty (cheating) is not tolerated at this university. It can be generally defined as giving or receiving aid in examinations or on assignments which are intended to be done individually, or the presentation of the work of other persons as one's own. Any talking in examinations, except to course staff, or any looking in the direction of another person's paper, is presumed to be cheating and will be treated as such. Persons caught cheating will (1) be dropped from the course with a directed grade of "F"; (2) be reported to the Dean of Students with the recommendation that they be expelled from the university.

LECTURE CALENDAR AND READING ASSIGNMENTS

Week & Assignment	Day	Lecture Topics-Other Information
		The Field of Sociology
Jan. 13	M	Big Warm Welcome and Bureaucratic Bull (You should listen; it's important!)
read: chs	W	Getting the Ketchup is What it's All About: the idea of the social
1 & 2	F	But How Do We Know They'll Pass It?: probabalistic thinking
		** 2/17 is last day for late registration **
		Choice and Interaction
Jan. 20	M	Durkheim on Suicide: Thinking Sociologically
read ch	W	(cont'd)
3	F	I was only Following Orders (film: obedience)
		** 2/25 is last day to drop a class without record **

CALENDARS FOR ASSIGNMENTS

S	M	T	W	Th	F	S

S	M	T	W	Th	F	S

S	M	T	W	Th	F	S

S	M	T	W	Th	F	S

20 REASONS WHY STUDENTS HAVE TROUBLE IN COLLEGE

1. **They have no major and no clearly defined goal in life.** They don't know what they want out of college and have no career plans after graduation. Students who have majors and know what field they want to go into get higher grades and have an easier time in college than students who are undecided about their majors.
2. **They have overwhelming personal or family problems.** A family member may become ill, parents may get divorced, or students may lack family support or understanding. College is also a time for identity crises. You'll be asking yourself a lot of questions, like "Who am I?" "Where am I going?" and "What do I want to do with my life?"
3. **They didn't have to study in high school, and they figure they can get by without studying in college.** Perhaps they kept up with their work in high school because their teachers checked up on them, but they lack the self-discipline that college work demands.
4. **They have financial problems.** They don't have enough money to purchase the books and materials required for their classes. Their financial aid may not have come through on time, and they don't have money for food or rent.
5. **They're in a major that's not right for them.** For example, they want to become an engineer, but they can't work math problems. Or their parents want them to major in public relations, but they're uncomfortable around people. They may like the idea of a college degree and enjoy being in school, but they dislike their curriculum and can't get excited about working in the field they're currently studying.
6. **Their goals are set too high.** For example, they graduated in the bottom ten per cent of their high school class but want to become a doctor or veterinarian. Or, they're in a hurry to finish school and sign up for more courses than they can handle.
7. **Their goals aren't set high enough.** They have potential but aren't using it. Perhaps they lack internal or external motivation. In any case, people who work far below their potential usually find their work meaningless and end up getting bored, blaming the system, and dropping out of school.
8. **They don't learn to manipulate the system.** They let other people make decisions for them, don't ask questions, and settle for things (like roommates, dormitories, or class schedules) that are unpleasant without questioning or trying to improve their situation.
9. **They let their social life take precedence over their academic work.** Away from home for the first time in their lives, they're unable to cope with their new-found freedom. They party more than they study.
10. **They are miserable socially.** They don't make friends, dislike their roommates, don't participate in any campus clubs or activities, don't talk to their professors, don't interact with the other students in their classes, and don't read the school newspaper to find out what's going on. These students often complain there's nothing to do, so they pack up and go home every weekend.
11. **They don't learn to psych out (or get along with) their professors.** They don't make an effort to put themselves in their professors' shoes or to try to see the world from their professors' point of view. They can't figure out what their professors want on exams. They can't adjust from one professor to another.
12. **They procrastinate.** They consistently wait until the last minute to do assignments and study for tests. Consequently, assignments build to such an extent in their minds that they hesitate to even begin them. When they finally do sit down to do the work, it often is poorly done.
13. **They don't want a degree badly enough.** Maybe they're in school because their parents wanted them to be or because their brothers and sisters all went to college. In any case, they're unwilling to go through the red tape it takes to get a degree, or to put in the required number of hours it takes to learn the material.
14. **They lack the necessary academic skills.** Many students who enter college have poor reading skills. They "read," but don't get anything out of it. Other important skills that students entering college sometimes lack are the ability to identify main ideas, take good classroom notes, initiate assignments on their own, use their long-term memory, draw inferences, apply the information they learn, manipulate course ideas or put ideas into their own words. Also, some students are handicapped by limited vocabularies, poor thinking and reasoning skills, and poor writing skills.
15. **They work, and their job interferes with their studies.** By the time they get home from work, they're too tired to go to class or to study.

16. **They get disappointed somewhere along the line, start on a downhill slide, and are unable to recover.** They miss assignments, start cutting classes, and finally end up withdrawing from the course or failing it.

17. **They don't take action—or they don't take action soon enough—if they start to fail a course.** Perhaps they know they've failed an assignment or two, but they don't really believe their instructor will fail them at the end of the term. Or, they may be passing some parts of the course, but the portions they're failing make up a larger part of their grade than the portions they're passing. In most basic speech courses, for example, you must pass the exams as well as the speeches in order to receive a passing grade.

    Another mistake students make is waiting until the last minute to get help. They find a tutor the day before an exam and expect to learn the entire course overnight.

18. **They believe that things will get better when . . . (basketball season ends, fraternity rush ends, swimming practice ends, spring break comes, etc.)** They believe that if they just had more time, they could catch up on their work and get "As" in all their classes.

19. **They fall in (or out of) love.** Being in love can be great when you're working on a degree—if you handle it correctly. It's fun to have someone to call you, care about you, and help you share your successes. It's when the object of your affection consumes all of your time and energy that you can get into trouble.

    The problem with falling in love, though, is that you are then a potential candidate for falling out of love. And that can be traumatic—whether you're the person initiating the break or the person being left. Since college is a time when people do a lot of dating, breaking up is an event that most college students experience.

20. **They get sick,** can't attend class, and can't concentrate when they study.

HOW TO SURVIVE AT COLLEGE

The ideas presented here on how to survive at college are divided into four categories: materials you will need, hints for the time you spend in class, hints for the time you spend outside of class, and things you are responsible for. At first glance, some of the ideas may seem fairly obvious, yet it's these same ideas that former students say to keep stressing.

MATERIALS YOU WILL NEED:

1. **All of the books for the courses in which you are enrolled.** A few notes about buying books:
    a) *Buy your books early—before* the term begins. Most bookstores order fewer books for each course than the expected enrollment so they're not "stuck" with extra books. Also, it's a good idea to *keep the receipts* until you're sure that you have the right books and that you're not going to drop the course. At most bookstores, in order to return a book for its full price, you must have the receipt.
    b) If you can avoid it, *don't buy books with a lot of underlining in them.* The previous owner may not have known how to underline . . . and studies show that you'll remember material better if you underline it yourself.
    c) A good way to save money on books is to borrow or trade them with your friends. Many schools have student organizations that conduct campus-wide book exchanges at the beginning of each new term.
2. **A notebook for each course in which you are enrolled.** Notebooks come in a variety of sizes, shapes, and colors. Select ones that suit your personality (e.g. purple paper) as well as your needs (looseleaf, spiral, with or without pockets).
3. **A healthy supply of felt-tip pens, ink pens, and pencils.**
4. **A watch for keeping track of time during a test.**
5. **A good dictionary** (not just a pocket dictionary). And, if you plan to do any writing, a **thesaurus**.

HINTS FOR THE TIME YOU SPEND IN CLASS:

1. **ATTEND EVERY CLASS.** There are three good reasons for this:
    a) First, the official university policy concerning attendance at most universities is that students are expected to be present for every meeting of the classes in which they are enrolled.

b) Second, students who attend class regularly get higher grades than students who cut class. Research conducted by Reece McGee, the head of one of the largest courses at Purdue University, found that the *variable most highly associated with success in his course was regularity of attendance at lecture.*

c) Third, one of the main reasons students drop out of school is because they feel they don't belong. Attending your classes regularly will keep you from feeling awkward and out-of-place.

2. **Arrive on time.** However, if something unexpected should occur, it's better to be late than to not attend at all. If you find that you cannot make it to class on time, be sure to let your professor know that you will usually be late and why.

3. **Sit in the front of the classroom and look interested in what the professor is saying.** Studies show that students who sit in the front of their classes tend to get higher grades than those who sit in the back. That's because students who sit in the front feel more a part of what's going on. They're better able to see, better able to hear, better able to ask questions, and are less likely to be distracted by other students. Also, if you run across a professor who passes tests out from the front of the room to the back, you may have more time to work on the test.

4. **Listen actively to what goes on in class and write down the pertinent information so you can refer to it later.** Many students feel that once they get to class, their job is over. Actually, it's just begun. Good students take an active interest in what the professor is saying—they try to relate the information being presented to their past experiences and they try to find a way to apply the new information to their own lives. It's wasted time if you just sit and let the material go in one ear and out the other.

5. **Make a friend, or friends, in each of your classes.** Students have been known to go through an entire term without talking to any of the other members of their classes. It doesn't take a formal introduction—start with a smile. Friends can come in handy for double-checking your notes, for borrowing notes in case you're ever sick, and for study partners before a big test.

6. **Don't deliberately hassle your instructor.** If you have a complaint—for instance, if you think your instructor graded a test question incorrectly—go to him after class and make an appointment to discuss it. During class is *not* the time to confront a professor. For one thing, professors have a lot on their minds when they're teaching a class. For another, you don't ever want to embarrass a professor or put him on the defensive in front of the other members of the class. After class, in the privacy of their offices, professors are usually a lot more "approachable" and willing to discuss differences of opinion.

7. **Don't pack your books up, put your coat on, or otherwise prepare to leave class before the bell rings.** These behaviors tell the instructor that you're anxious to get out of there. And don't think the professor can't see you! Professors are quite sensitive to negative behaviors. In short, don't let your instructors catch you making any kind of verbal or nonverbal signal that could be open to a negative interpretation.

8. **If you ever have to miss a class:**

a) Call your instructor to let him know why you missed and when you'll be back. Showing that you care enough about the class to call may help alleviate some of the damage you do by not attending. It's better to call your professor *before* missing a class, but calling *after* you miss is still better than not calling at all. You'd be surprised—no matter how much they may scare you in class—most professors are sympathetic and easy to talk to on the phone.

b) Check with your professor to see if you can listen to the lecture on audio tape. Professors of large enrollment courses often record their lectures and put copies of them in the school library. Likewise, if you have to miss class on a day when they're watching a film, see if you can make arrangements to see the film at another time.

c) Make *sure* you're in class the day preceding a test to get any last-minute instructions on how to study for it.

d) If you're sick on the day that you have a paper due, have a (trustworthy) friend turn it in for you.

HINTS FOR THE TIME YOU SPEND OUTSIDE OF CLASS:

1. **You're going to have to study . . . and, believe it or not, there's going to be pressure on you not to.** Being able to say "I've got to study" to someone who calls to chat or to a group of friends going out for a beer may be one of the hardest lessons there is to learn. Yes—you need time to relax with your friends, but you're the one who's ultimately responsible for your grades, so it's up to you to decide when it's time to study.

Students don't study for a variety of reasons—social temptations, lack of motivation, unclear goals, the material is over their heads, etc. It's all right not to study every once in a while . . . but studying is a large part of college work. If you really don't like doing it, then you may be in the wrong major or at the wrong school. Or maybe the timing is wrong and you should postpone school for awhile until you get your motivation back.

2. **Do everything in your power to keep up with your work.** College is not like high school. Instructors are not going to follow you around to see if you're doing your assignments. What they'll do is hand you a syllabus at the beginning of the term and expect you to follow it.

   It's especially important to keep up with your work during the first four weeks of the semester. That's because everything you learn in the first four weeks serves as a foundation for the material presented in the rest of the course. If you don't understand the material at the beginning of the course, it's going to be hard to understand the rest of it.

   There are three things you can do to avoid falling behind in your courses: *study a little bit every day, study between your classes, and review your notes before you go to bed.* These three suggestions will make studying a lot less painful when it comes time to prepare for a test. Learning is always easier when you do it a little at a time.

3. **If you have any kind of a problem—tell someone.** You can't study when you have something on your mind. If it's a personal problem, try to resolve it, then get back to your books. If it's a problem you're not able to solve on your own, tell the counselor in your dorm, one of your professors, or someone in the Dean of Students Office. Many times, telling your problem to a friend isn't enough—you'll need to discuss it with a professional. There's no stigma about having problems. We all have problems at one time or another, and we all have times when we need to ask others for help. You can usually get a list of people who can help you from your Dean of Students Office.

4. **Stay healthy.** College students are notoriously unhealthy. They don't eat right, don't keep regular hours, and don't know how to care for themselves once they get sick. You can prevent many illnesses if you:

   a) *Exercise regularly.* Studies conducted in the department of Health and Safety at Purdue University have found that a person who exercises regularly has a better self-concept, can think more clearly, and can learn new material more easily than someone who doesn't exercise. So, if you're sluggish and nothing excites you, it may be that you need to exercise.

   b) *Get enough sleep.*

   c) *Eat right.* Eating a good breakfast is a good habit to establish. According to leading nutritionists, you determine how you feel each day by the breakfast you eat. If you eat enough of the right kinds of foods, your thinking will be clearer and your disposition will be cheerful and cooperative. However, if you eat too little, or too much of the wrong kinds of food, your thinking will slow and you'll become tense, irritable, grouchy, depressed, and uncooperative. If you're one of those people who doesn't get up early enough to eat breakfast—or if you just "can't" eat breakfast, make sure that you have a good lunch and dinner.

5. **Develop a system of personal rewards.** Before you begin to study, set a short-term goal for yourself—like answering five math problems. Then decide how you're going to reward yourself upon achieving that goal—watch television for a half hour, have a snack, call a friend, etc. Give yourself an even larger reward when you get a good grade on a test—a nice dinner, a movie, a new tape. Also, be sure to share your successes with other people. Tell your roommate when you get an "A," or call your mother and tell her. She'll probably enjoy hearing from you.

THINGS YOU ARE RESPONSIBLE FOR:

1. **Finding a major that matches your interests and will enable you to get a job after graduation.** If you need help finding a major, ask your academic advisor for a vocational interest test. Almost all colleges and universities have career counseling offices where you can get help finding the right career.

2. **Knowing how you're doing in each of your classes.** At the beginning of each course, read your syllabus carefully to find out exactly how you're going to be graded. If you start experiencing difficulty in a course, there are three things you can do:

   a) Talk with your professor and try to figure out what the problem is.

   b) Get a tutor.

   c) Drop the course. At most universities, you're allowed to drop a course if you're failing; however, you must do so by a certain date. It's your responsibility to discover what this date is. Your academic advisor can help you withdraw from a course.

3. **Registering for your classes for the following term.** Some students become very involved in this task and try to find out what the most interesting courses on campus are by asking other students. These students also make out their schedules as soon as they can, since they know that the good courses often fill up early.

   On the other hand, a large number of students go through school on a "pot luck" basis, relying on their advisors to make out their schedules for them. In order to make out a schedule that reflects your personality and background, your likes and dislikes, and your goals in life, your advisor would have to know you inside out. Most advisors simply do not have the time to become that involved with their advisees. Therefore, it's *your* responsibility to find out what the course requirements are for your school, how much freedom you have in taking electives, and which are the outstanding professors on campus.

COLLEGE TERMINOLOGY

A basic rule-of-thumb in life is that the more you know about what you're doing, the better you can do it. In applying this principle to your college experience, familiarity with the rules, the regulations, and the language spoken there can eliminate some problems you might otherwise encounter.

One thing that will make life easier is to understand academic jargon. You should learn what the terms **student classification, grade point average,** and **probation** mean. You should know the system of grading used at your university, the titles of the various people who teach there, and the types of degrees that can be earned.

Perhaps the best way to begin a discussion of college terminology is to explain the difference between a **junior college, a college,** and **a university.** Junior colleges (community colleges) usually offer programs that can be completed in two years. After completing one or two years of school, many junior college students transfer to a college or university.

Colleges are usually larger than junior colleges and offer four-year programs which lead to bachelor's degrees.

Universities are the largest of the three and are made up of many different schools. A main distinction between a college and a university is that universities offer graduate programs and advanced degrees. Universities are also known for encouraging their faculty members to do research—that is, to invent new things, find cures for diseases, create new theories, and find applications for already existing theories. Their professors are encouraged to publish their findings in journals in their respective fields.

One thing that community colleges, colleges, and universities have in common is that they usually all offer adult education programs. Courses are offered in the evenings for people in the community to take for fun (beginning pottery, auto repair, photography), or to learn a new skill that will help them in their jobs (computer programming). Another similarity is that these institutions can either be **state-funded**, which means they receive much of their financial support from the taxpayers in the state, or they can be **privately-funded**, which means that student tuition serves as the principle financial base.

There are four main categories of people on a college campus. **Administrators** are the people who run the college; **faculty** are the people who teach; **students** are the people working on degrees; and the **support staff** includes people with jobs that help either the students, the faculty, or the administrators.

Most colleges operate either on the **quarter** system, where students attend three quarters a year, or the **semester** system where students attend two semesters a year. There are usually ten weeks in a quarter and sixteen weeks in a semester.

At most colleges, grades are mailed to the students at the end of each quarter or semester. Some colleges have a system whereby professors notify students who are doing poorly in their classes midway through the term. This notification is to warn the student that he or she will fail the class if no improvement is made. A student receiving this notification who doesn't think he or she can pull his grade up might decide to withdraw from the course (if that's a possibility) and register for it at another time.

At the end of the term, some students find they've earned low grades in several of their classes—low enough to put them on **academic probation.** This is another warning to students that they need to pull their grades up. Some colleges will ask students to drop out of school if they receive low grades two terms in a row. Also, the grade point average required to remain in school may increase each term.

Most colleges have a second type of probation called **social probation**. This means that you're in trouble with the university for a non-academic reason, like breaking a rule in your residence hall or doing something on campus that's illegal.

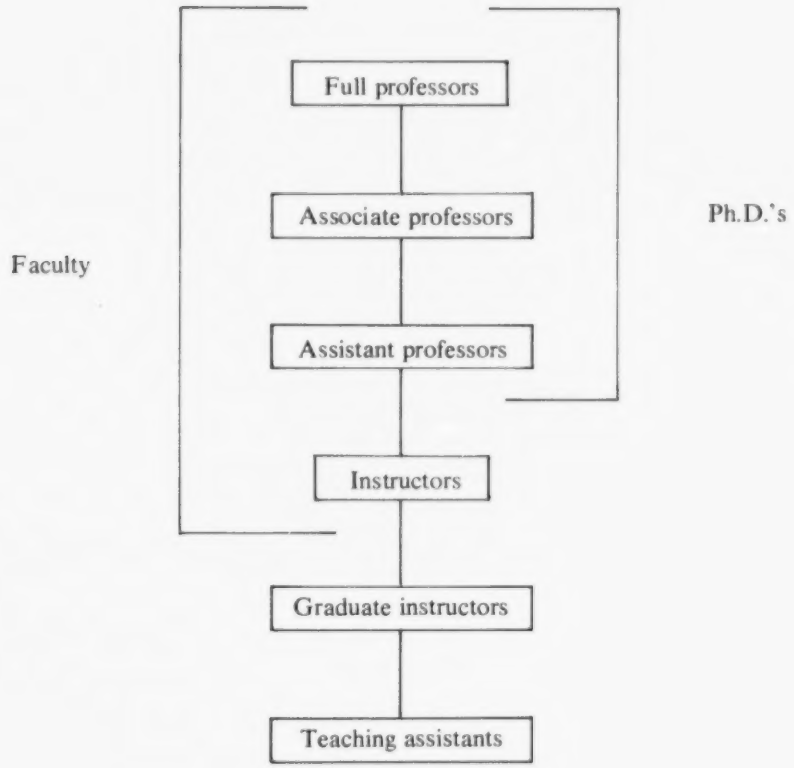
There are several pieces of jargon you might run across while you're in school that apply to faculty members. Three of the more important ones are **tenure, sabbatical,** and professor (or dean) **emeritus**.

Tenure works roughly in the following way. After professors teach for a certain length of time (usually three to six years), they are eligible to go up for tenure. At that time, members of their department vote on whether they should remain on the staff. If it's a "yes" vote, they're awarded tenure, and unless they do something drastically wrong, their jobs are relatively secure and their contracts with the university are automatically renewed every year. If the vote is "no," they're not awarded tenure and they need to start looking for another job.

Professors also leave the university when they take **sabbaticals,** but this is a very positive kind of leaving. Actually, a sabbatical is a semester "off" for academic and professional enrichment. Most professors on sabbaticals travel, write books, do research, or teach at another college or university.

Emeritus is an honorary title given to a professor after retirement. Many retired professors are allowed to retain their offices on campus and continue the work they were pursuing before they retired.

TEACHING STAFF AT A COLLEGE OR UNIVERSITY



Full professors have the most status and seniority within their departments.

Associate professors have more status and seniority than do assistant professors but not as much as full professors. When assistant professors are promoted to rank of associate professors, they are often granted tenure at the same time.

Assistant professors have the lowest professorial rank.

Instructors have the lowest faculty rank. They usually do not have Ph.D.'s.

Graduate instructors are senior graduate students.

Teaching assistants (T.A.s) are graduate students working on advanced degrees who teach undergraduate classes in return for their own education.

CLASSIFICATIONS OF STUDENTS

Graduate Students

Types of degrees they can be working on:

Doctorate (Ph.D.)
Educational Specialist (Ed.S.)
Master's (M.A., M.S.)

Undergraduate Students

Usually working on Baccalaureate degrees (B.A., B.S.)

Seniors
Juniors — Upperclassmen
Sophomores
Freshmen

Universities have two types of students: **graduate students** are working on advanced degrees, and **undergraduate students** are usually working on bachelor's degrees. Most colleges operate only at the undergraduate level.

Your **student classification** indicates how far along you are in your college career. The labels freshman, sophomore, junior, and senior are assigned according to the number of credit hours you have successfully completed. They are used by academic advisors to help students plan their schedules. To some extent, your classification determines what level courses you should take. A rough rule-of-thumb is that freshmen and sophomores take 100 and 200 level courses, juniors and seniors take 300, 400 and 500 level courses, and graduate students take 500 and 600 level courses.

Most undergraduates work towards a **B.A.** (Bachelor of Arts degree) or a **B.S.** (Bachelor of Science degree). Neither degree is better—a B.S. indicates that the student took more scientifically oriented courses. Normally, it takes four years to earn a bachelor's degree.

Once you earn enough credit hours to receive your degree, you then become a **graduate**, or **alumnus**, of the university you attended. The college from which you graduate is called your **alma mater**.

If you decide to continue your education, you can apply to be accepted into a graduate program to work on an advanced degree. A **master's degree** (M.A. or M.S.) usually takes between one to two years to complete. After receiving a master's degree, you may decide to remain in school for even further specialization in your field, in which case you would work towards your **doctorate**, or **Ph.D.** A Ph.D. is the highest degree that can be earned from a university.

HOW TO FIGURE A GRADE POINT AVERAGE

It's important for you to know how to compute your **grade point average**, or **gpa**, since grades at college are assigned numerically and not by letter grades. The most common grading system is the 4.00 point system. Some colleges use a 12.00 system; some use a 6.00 system; some use a 3.00 system. In a 4.00 point system, an "A" is worth 4.00 points. Your first step in learning to figure a **gpa** is learning which point system your college uses.

COMPUTING A GPA

Let's say that your friend Joe Blow took five courses during his first semester and that you've been assigned to figure his gpa. To do this, you need three pieces of information: (1) what courses he took, (2) the number of credit hours each course was worth, and (3) the grade he received in each of the courses.

Let's say that Joe received an "A" in English 101 (3 credits), a "C" in Math 151 (5 credits), a "B" in Psychology 120 (3 credits), a "D" in Communication 114 (3 credits), and an "A" in PEW 100 (1 credit). Here's the procedure you should use for computing his gpa:

1. Using the key that's used in your school, change each of the grades Joe received into its corresponding number of points.

KEY for 4.00 point system

A = 4.00
B = 3.00
C = 2.00
D = 1.00
F = 0.00

2. **Multiply** those points by the number of credit hours per course.
3. **Add** to find the total number of credit hours.
4. **Add** to find the total number of earned points.
5. **Divide** the total number of points by the total number of credit hours and carry the answer out to two decimal places.

COMPUTING A GPA USING A 4.00 SYSTEM

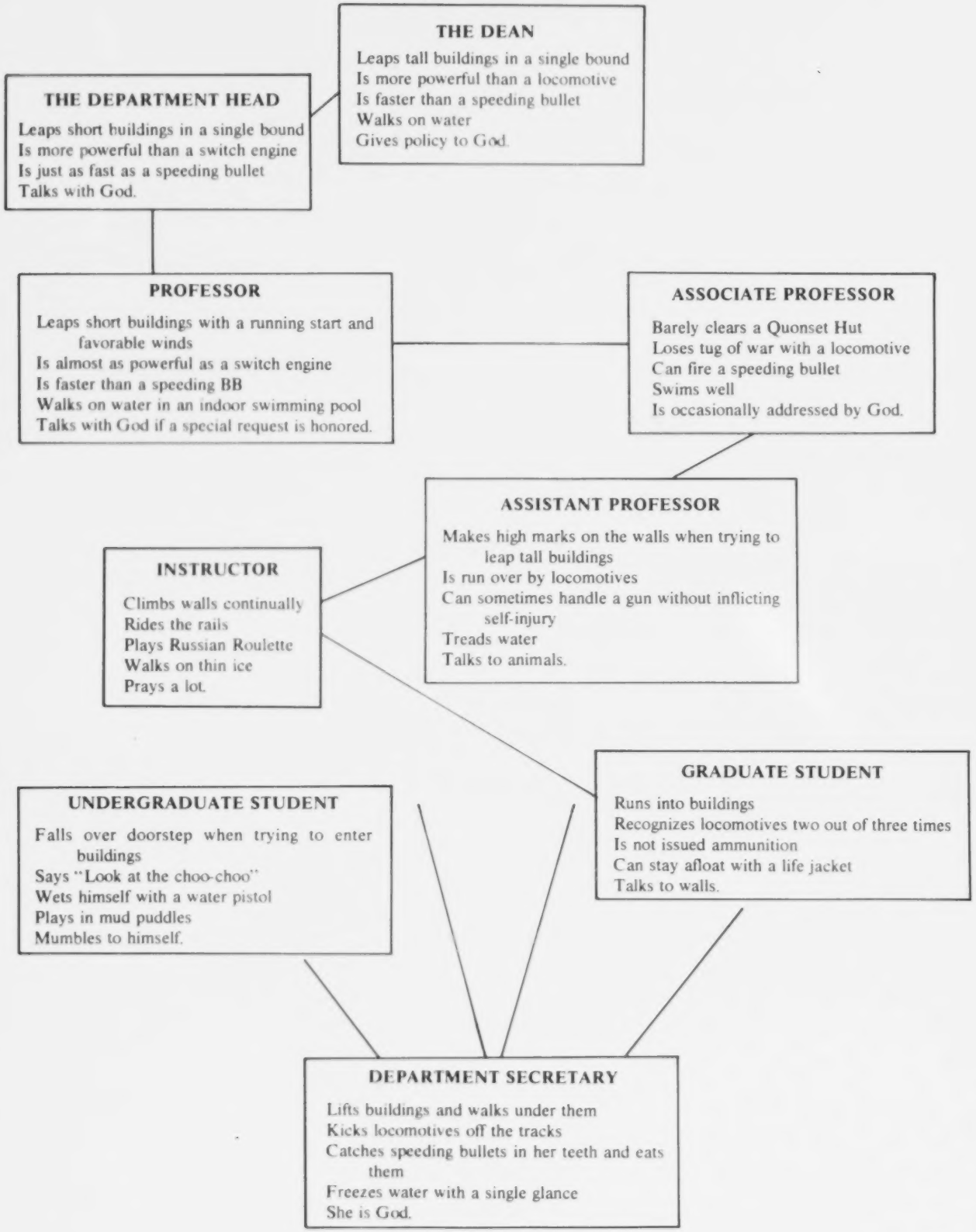
Courses	Letter grades		Numerical value for letter grade		Credit hours		Earned points
English 101	A	=	4.00	x	3	=	12
Math 151	C	=	2.00	x	5	=	10
Psychology 120	B	=	3.00	x	3	=	9
Comm 114	D	=	1.00	x	3	=	3
PEW 100	A	=	4.00	x	1	=	4
					15		38
					total number of credit hours		total number of points

$$15\overline{)38.00} = 2.53$$

30
80
75
50
45

gpa for the semester

UNIVERSITY HIERARCHY


THE DEAN
Leaps tall buildings in a single bound
Is more powerful than a locomotive
Is faster than a speeding bullet
Walks on water
Gives policy to God.
THE DEPARTMENT HEAD
Leaps short buildings in a single bound
Is more powerful than a switch engine
Is just as fast as a speeding bullet
Talks with God.
PROFESSOR
Leaps short buildings with a running start and favorable winds
Is almost as powerful as a switch engine
Is faster than a speeding BB
Walks on water in an indoor swimming pool
Talks with God if a special request is honored.
ASSOCIATE PROFESSOR
Barely clears a Quonset Hut
Loses tug of war with a locomotive
Can fire a speeding bullet
Swims well
Is occasionally addressed by God.
ASSISTANT PROFESSOR
Makes high marks on the walls when trying to leap tall buildings
Is run over by locomotives
Can sometimes handle a gun without inflicting self-injury
Treads water
Talks to animals.
INSTRUCTOR
Climbs walls continually
Rides the rails
Plays Russian Roulette
Walks on thin ice
Prays a lot.
GRADUATE STUDENT
Runs into buildings
Recognizes locomotives two out of three times
Is not issued ammunition
Can stay afloat with a life jacket
Talks to walls.
UNDERGRADUATE STUDENT
Falls over doorstep when trying to enter buildings
Says "Look at the choo-choo"
Wets himself with a water pistol
Plays in mud puddles
Mumbles to himself.
DEPARTMENT SECRETARY
Lifts buildings and walks under them
Kicks locomotives off the tracks
Catches speeding bullets in her teeth and eats them
Freezes water with a single glance
She is God.

WORKSHEET: COLLEGE TERMINOLOGY

1. What are some of the differences between a junior college, a college, and a university? _____

2. What is the highest degree that a student can earn from a university? _____
3. Juniors and seniors comprise a group known as _____
4. A graduate student who teaches at a college or university is called a _____
5. Someone who has earned a Ph.D. has then earned a specific title. What is that title? _____

6. What are the four categories of people at a college? _____

7. Generally, how long does it take to earn a Bachelor's degree? _____
8. What are the people who run a college called? _____
9. What is the difference between a B.A. and a B.S. degree? _____

10. What degrees could a graduate student be working toward? _____
11. What is the difference between an undergraduate and an upperclassman? _____

12. What does B.A. stand for? _____
13. What does Ph.D. stand for? _____
14. By rank from highest status to lowest status, what are the three levels of professors? _____

15. What are the two kinds of probation? _____
16. What is a sabbatical? _____

TRUE - FALSE QUESTIONS. Circle T if the statement is true; F if the statement is false.

T F 1. All undergraduates are upperclassmen.

T F 2. All upperclassmen are undergraduates.

T F 3. A person working on a master's degree probably already has his doctorate.

T F 4. In a university hierarchy, an assistant professor has less status than does an associate professor.

T F 5. T.A.s are usually working on their master's degrees; instructors are usually working on their Ph.D.s.

T F 6. All doctors (e.g. Dr. Smith) are professors.

T F 7. A person working on his Ph.D. probably already has his master's degree.

T F 8. The main difference between a college and a university is that colleges are privately supported and universities are supported by the state.

T F 9. If one of your professors asks to be addressed as "*Dr.* So and So," you can assume he has his Ph.D.

T F 10. Tenure is a desirable state for a professor.

PRACTICE IN FIGURING GPA'S

1. Jim is a freshman who just finished his first semester. He took English 101, Psychology 120, Communication 114, Math 151, PEM 002, and Biology 600. His psychology and communication courses were each three credit courses. PEM002 was one credit; English 101 was two credits. The other two courses were five-credit hour courses. Here are the grades he received. Based on the system of grade point averages used at your college, figure his **gpa**.

English – F	Biology – D	Math – C
Psychology – C	Communication – B	PEM – A

2. Calculate the grade point averages for the following individuals:

Susan:	Bio 108	4 hrs.	B
	Math 111	3 hrs.	C
	Eng 102	3 hrs.	A
	PEM 111	1 hr.	D
	Com 114	3 hrs.	B

John:	Bio 109	4 hrs.	B
	Math 153	3 hrs.	W/F
	Soc 100	3 hrs.	C
	Psyc 120	3 hrs.	D
	Mgmt 100	1 hr.	A

INFORMATION ABOUT YOUR COLLEGE

It's important to know where you can go on campus for help with personal and academic problems. You can usually get a list of available counseling services from your academic advisor or from the Dean of Students Office. Most colleges and universities have the following services:

1. **Academic Advisors**
   These are the people within your school who keep track of your academic record. They help you register for your courses and drop and add courses once the term has started. They also make sure that you meet the requirements for your degree so that you can graduate on time.

2. **Business Office**
   Sometimes referred to as the Bursar's office, this is the office that collects student fees, handles departmental bills, and distributes financial aid.

3. **Career Development & Counseling Services**
   This is where a student can obtain specific career counseling. You can take vocational interest and ability tests and discuss the results of these tests with professionals. The staff is knowledgeable about the current job markets and can help you find a career suited to your personality, interests, and skills.

4. **Dean of Students Office**
   The Dean of Students office offers a wide variety of services and is a good place to go for any personal or academic problem. They can give you advice if you're having trouble with your roommate or with one of your professors. They can help you find a career if you're undecided. They advise students with special problems, such as students with handicaps, older students who are returning to school, or veterans. They may make emergency loans, help you arrange your schedule if you have a job, or help you arrange for off-campus housing. This is the office you should contact if there's a death or illness in your family and you must suddenly leave campus. Also, most Dean of Students offices have lists of tutors you can contact if you're having difficulty in any of your courses.

5. **Financial Aid Office**
   This office administers financial aid for students who need money for school. The four kinds of financial aid are: grants, loans, scholarships, and work-study jobs. This office can provide information about part-time employment both on and off campus. They may also provide financial counseling.

6. **Foreign Student Advising**
   General counseling and academic information is available for foreign students and staff members. In addition, this office can provide information for U.S. students interested in study or travel abroad.

7. **Learning Center**
   This office offers assistance to students who wish to improve their study, reading, and reasoning skills. Diagnostic tests are administered to help students determine their strengths and weaknesses in these areas.

8. **Minority Student Programs**
   These are programs to help people become more familiar with different minority groups such as blacks, women, and hispanics.

9. **Off-Campus Student Housing**
   This office helps students find housing off campus and handles problems that occur between student tenants and landlords.

10. **Office of Admissions**
    This office contacts high school students and distributes information about admission procedures. They officially admit new students, advise students who are admitted on a temporary basis, and process applications for students transferring from other campuses.

11. **Office of the Registrar**

The main concern of this office is to register students for their classes. Other services include determining residency classification, providing copies of a student's academic record, and helping students transfer from one degree program to another.

12. **Placement Service**

This office is designed to help students find jobs. They offer information on different occupations and job openings, and schedule personal interviews with employer representatives who come to campus. They also provide information on graduate and professional schools.

13. **Psychological Services**

In this office, students can get help with personal problems, such as problems with self-concept, shyness, test anxiety, interpersonal relationships, or adjusting to college life. Besides offering help on a one-on-one basis, they may also offer small group workshops at certain times throughout the term.

14. **Residence Halls**

In most residence halls, the directors and their staffs are trained to counsel students with personal problems such as homesickness, roommate problems, and depression.

15. **Student Health Center**

Most universities have a clinic or health center where students can go when they're sick. They usually offer outpatient service for students with minor problems, and many of them offer inpatient service for students who need surgery or hospitalization. They may also provide mental health care. Check and see if you need to purchase student health insurance in order to use these facilities.

WORKSHEET: INFORMATION ABOUT YOUR COLLEGE

Directions: For each situation below, decide what action or actions are necessary to resolve it. Specifically, state what office or person on campus you would need to talk to.

1. You want to change your major. _____

2. You feel you were given an unfair grade in a course you took last term. _____

3. You want to apply for financial aid for next semester. _____

4. You have been put on academic probation. _____

5. You're unsure about your major and want some help in deciding what your interests are. _____

6. You drop a course and want to make sure that it doesn't appear on your record. _____

7. You find out your financial aid has been cut back or cancelled. _____

8. You receive an overdue notice on a fee statement, but you've already paid it. _____

9. You have just received notice that you need to go home because of an emergency, but you have absolutely no money for transportation. _____

10. Your break up with your boyfriend/girlfriend is really bothering you, and you want to talk to someone about it.

11. You want to find a summer job related to the field you're in. _____

12. You can't stand your roommate. _____

13. You receive a midterm report that says you're failing one of your courses. _____

14. You'd like to study abroad during your junior year and need information about the possible programs available.

MANAGING YOUR TIME IN COLLEGE

One of the biggest adjustments you'll have to make when starting college is learning to manage your time. Now that you're on your own, you can spend your time any way you wish. Your parents aren't breathing over your shoulder, your instructors aren't asking if you've done your assignments, and nobody's checking to see what time you get in in the evening. You can even decide whether or not to attend your classes. And whether or not to attend a particular class (a 7:30 a.m. Spanish class) on a particular day (a Saturday morning in winter) can be a difficult decision, especially since no one will punish you for missing the class nor will anyone be there to pat you on the back if you do attend.

Let's look at a typical freshman taking sixteen credit hours and see how many decisions he'd have to make during his first semester if he had to stop every time and think about whether or not to attend class. If he's supposed to attend class 19 times a week—that's 19 decisions per week times 16 weeks—he'd have to make 304 decisions that semester about whether or not to attend his classes.

But there's more to decide than just whether or not to attend class. You have to decide when to get up, when to go to bed, and when to eat. Every time you have a break between classes you have to decide what to do. You can grab a snack, go to the gym, find a date for the weekend, do your laundry, watch TV, write a letter home, take a nap, talk to a professor, or catch up on some outside reading. Or, you can finish an assignment that's due, go to the library and start your term paper, try out for a play, work on the school yearbook, play touch football . . . the options are practically endless.

And how about after dinner? Here come some more decisions. You've just had dinner and your friends stop by to ask you to watch TV. You'd like to, but you have a math assignment due the next day. Surely you deserve to relax after sitting in classes all day—on the other hand, it's a fairly good-sized assignment and you know that if it's not turned in on time it will hurt your grade. What should you do? Well, what you'll probably do is either: (1) watch the program and not enjoy it because you're feeling guilty about not studying, or (2) sit at your desk and not be able to concentrate because you're wishing you were watching TV.

THE ADVANTAGE OF A TIME SCHEDULE

Because you have so much free time at college, and because your time is your own, you're going to be making a large number of time-related decisions. No one will help you with those decisions, and you alone will be held responsible for your choices. Your first year at college will be less traumatic if you can cut down on the number of decisions you have to make. Instead of making 304 decisions a semester about whether or not to attend your classes, make one firm decision at the beginning of the semester that you will attend.

Another way to reduce the number of decisions you have to make is to set aside specific times during the week to study. Then, don't change your mind. Establish a regular routine. Once you get into a routine, studying at certain times will become a habit and the temptation to do something else will lessen. One of the tricks in setting up a schedule is to plan to study at times when things aren't happening that might tempt you away from your books. For instance, many successful students try to get their work done during the day so their evenings will be free.

Students who react negatively to the idea of a study schedule perhaps have never tried using one. Their reasons are similar:

"I'd feel tied down."

"It wouldn't let me be spontaneous."

"I'm too independent to do something like that."

"I need my freedom."

The fact is, many of the students who make those comments can also be heard saying:

"I'm behind in all my classes."

"I don't have enough time to do my work."

"I had to cut my English class this morning to get my Biology assignment done."

"I'm going to have to pull another all-nighter tonight."

"I had to drop my math class."

Perhaps people who object to the idea of a study schedule aren't really familiar with them. A study schedule is a personal, flexible statement of the important events in your life. It's personal because you set aside as much or as little time for study as you want. And it's flexible—it changes— because from week to week your priorities change. If used correctly, a

study schedule will **give** you freedom instead of take it away. It's a psychological crutch which will save you time because it will reduce the number of decisions you have to make. Also, it will keep you from feeling guilty when you're having a good time, and help you concentrate when you're studying. Make sure your schedule includes plenty of time for fun and an appropriate amount of time for study. Then, when you read "have fun" on you schedule—**have fun!** And when it says "study"—**study!** There won't be any gray areas where you find yourself doing one thing and wishing that you were doing something else.

MAKING A STUDY SCHEDULE

1. Fill in the courses you're taking on the blank study schedule on page 35.
2. Fill in the hours you work.
3. Fill in the activities you plan to pursue during the coming week, such as club meetings, athletic practice, or exercise.
4. Fill in the times you eat. Don't skimp on these hours—be sure to give yourself plenty of time to relax and unwind at dinner.
5. With a different color pen, fill in the times you're going to study. There are several things to keep in mind when scheduling time to study:

   (a) A good rule-of-thumb is to study two hours outside of class for every hour you spend in class. This may sound like a lot of studying, but if you're planning to do well in college, you'll probably need to spend at least that much time at it. Some courses, like foreign language courses, may require more than two hours outside of class; others may not require as much. After you're into the term a week or so, you should have a pretty good idea how much time each course will take.

   (b) The word **study** needs to be defined. When you study, you should read the course syllabus and complete any assignments that are due the next class period, *including the reading assignment*. This means underlining the important points in your book and/or taking notes from it. Once you've done these things, you can always reread or recopy your class notes, start reviewing for the next test, look up old tests that were given in the course in previous terms, or start on any long-term projects like a term paper that will be due at the end of the course.

   (c) Schedule your studying for times when you're fresh and alert. Some people are at their best in the mornings and should study then. Other people don't function well until afternoon, and still others prefer studying in the evening.

   (d) Be specific about what you're going to study when. That way you'll establish the habit of studying a certain course at a certain time. The more such habits you establish, the easier it will be to discipline yourself to study.

   (e) Be sure to put the free time between your classes to good use. For example, if you have an hour free before your biology class, use that time to read the assignment and to review your previous class notes. If you have an hour free after class, use the time to recopy your notes while the material is still fresh in your mind. Or, use the time to start on the next assignment.

   (f) If most of your classes are on the same day, don't try to do a lot of studying that evening. Just plan to attend your classes and study on a day that's less hectic.

   (g) Concentrate when you study. One hour spent in deep thought and concentration will be more productive than three to four hours of unfocussed study. Also, it will help if you set a goal for each of your study sessions so you'll know where you're heading and when you're done.

   (h) Don't study for long periods of time. Research shows that long periods of study without breaks are not as conducive to learning as studying for short periods of time with frequent breaks. Some students study for periods of twenty to thirty minutes; others prefer taking breaks every hour.

   (i) Finally, a word about where to study. The kinds of places where people study best vary. Some people need absolute quiet, while others can study in front of the television. Some people like working alone, while others prefer studying in a group. You may need to vary your location depending on the kind of work you're doing. For example, you may need a greater amount of privacy when you're studying for a test than when you're doing a homework assignment. Ideally, you should try to find several places where you feel comfortable studying.

6. Follow the schedule for a week. At the end of the week, you'll probably want to make some adjustments in it. Throw out the parts that didn't work for you, and keep the parts that you felt were successful. Remember, your study schedule is YOURS, so if you don't like it, change it! If your schedule was too structured, try loosening it up. If you didn't get as much accomplished as you needed to, you may want to structure it a little more. The sooner you can establish some regular patterns of behavior, the better off you'll be.

7. Make an appointment with your instructor to discuss your study schedule. If you're having some difficulty with it, perhaps your instructor can suggest some changes.

MAKING A LIST OF THINGS TO DO

In addition to a study schedule, some students find it helpful to make list of things to do. This is a good idea if you find yourself forgetting to be places you should be or forgetting to do things you were supposed to do. Such a list can either be in chronological order:

8:00 breakfast with Communication committee to discuss group presentation
9:00 run to bookstore—need more 3 x 5 index cards!
9:30 English class—take assignment
10:00 meet John at Sweet Shop

Or, you could put the items in order of importance or difficulty:

1. Finish chemistry assignment!!
2. Call for an appointment with advisor to make out next term's schedule
3. Buy 3 x 5 index cards at bookstore

If the idea of making a daily "to do" list appeals to you more than following a study schedule, then try it. You may want to try mapping out an entire week in list form.

SAMPLE STUDY SCHEDULE

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Remarks
A.M. 6:30 to 7:30	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	
7:30 to 8:30	Breakfast / getting ready	Breakfast / getting ready	Breakfast / get dressed	Breakfast / dress	Breakfast / get dressed	Sleeping	Sleeping	
8:30 to 9:30	cleaning room studying	cleaning room studying	meet friends for coffee	meet friends before class	doing laundry	Sleeping	Sunday School	
9:30 to 10:30	preparing for next class	Studying	preparing for next class	Engineering 100	cleaning room	getting dressed	Sunday School	
10:30 to 11:30	Pol Sci 304	studying	Pol Sci 304	visit friend in nursing home	Pol Sci 304	doing errands	Church	
11:30 to 12:30	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	lunch with family	
P.M. 12:30 to 1:30	with mother	CDFS 350	cleaning room	CDFS 350	with mother	Shopping	↓	
1:30 to 2:30	Pol Sci 235	↓	Pol Sci 235	↓	Pol Sci 235	↓	spend time with family	
2:30 to 3:30	studying at library	meet friends at Sweet Shop	studying at library	meet friends at Sweet Shop	studying at library	visiting friends	↓	
3:30 to 4:30	↓	Friends at Sweet Shop	↓	Friends at Sweet Shop	↓	↓	↓	
4:30 to 5:30	Comm 212	watching TV + local news	Comm 212	watching TV + local news	Comm 212	↓	↓	
5:30 to 6:30	DINNER	DINNER	Exercise Jogging	TV	Exercise Jogging	DINNER	Exercise Jogging	
6:30 to 7:30	watching News	Dinner GS290X	DINNER	DINNER	DINNER	studying or	DINNER	
7:30 to 8:30	Watching TV	GS290X	Watching TV	at home studying	Time spent with friends	out with friends	Relaxing at home	
8:30 to 9:30	Watching TV	↓	Watching TV	Studying	↓	↓	(reading a book I want or	
9:30 to 10:30	at home studying	Studying	at home studying	Studying	↓	↓	watch a program on TV)	
10:30 to 11:30	studying	studying	studying	television	↓	↓	Sleeping	
11:30 to 12:30	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	

STUDY SCHEDULE

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Remarks
A.M. 6:30 to 7:30								
7:30 to 8:30								
8:30 to 9:30								
9:30 to 10:30								
10:30 to 11:30								
11:30 to 12:30								
P.M. 12:30 to 1:30								
1:30 to 2:30								
2:30 to 3:30								
3:30 to 4:30								
4:30 to 5:30								
5:30 to 6:30								
6:30 to 7:30								
7:30 to 8:30								
8:30 to 9:30								
9:30 to 10:30								
10:30 to 11:30								
11:30 to 12:30								

STUDY SCHEDULE

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Remarks
A.M. 6:30 to 7:30								
7:30 to 8:30								
8:30 to 9:30								
9:30 to 10:30								
10:30 to 11:30								
11:30 to 12:30								
P.M. 12:30 to 1:30								
1:30 to 2:30								
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4:30 to 5:30								
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7:30 to 8:30								
8:30 to 9:30								
9:30 to 10:30								
10:30 to 11:30								
11:30 to 12:30								

HOW TO IMPROVE YOUR MEMORY

Do you have trouble remembering things? Well, don't feel bad. In a study done several years ago it was found that people forget *half* of what they hear *immediately* after hearing it!

This particular study should be of interest to you because the subjects were Midwestern college students who listened to short lectures—the same kinds of lectures that you attend and are tested over. If it's normal to forget information so rapidly, then maybe we should examine the memory process and try to develop some techniques to improve our memories.

Actually, the memory process involves three steps. First, we perceive new information; second, we organize and store it in our brains; and third, we "retrieve" the information, or bring it out of storage. If anything goes wrong at any of these stages, we lose the information—that is, we can't remember it. Let's begin by looking at what can go wrong at each of the three stages. Then we'll suggest ways to overcome the problems.

PROBLEMS THAT CAN OCCUR IN PERCEIVING INFORMATION

The world is a complicated place. We're exposed to a myriad of new information every day. As intelligent beings, we're constantly on the lookout for ideas that we might have some future use for. This means that we're constantly selecting stimuli to store.

Basically, there are two things that can go wrong at the perception stage: (1) we simply do not hear (or see) the information, or (2) we may hear (or see) it but we don't perceive it as being important enough to store. In a lecture situation, for instance, there are a number of ways you can miss information. You can be daydreaming, you can be distracted by someone in front of you, you may dislike the professor, you may like the professor but dislike what she's saying, you may be hungry, the chair may be uncomfortable, you may be tired, you may have heard the material a hundred times before, the material may be over your head, or you may be writing notes on something the professor has said and then miss what she says next.

Added to these listener-related problems are speaker-related problems. Professors sometimes do things that make it difficult for us to pick up the important points of their lectures. They may mumble or speak too softly. They may talk into their notes or into the chalkboard. They may have a foreign accent. They may not clearly distinguish between the main points and the supporting details.

Even when speakers are doing their best to send information and students are doing their best to receive it, external factors, such as a loud noise, can distort the message. And if listeners don't pick up the information, they won't be able to recall it at a later date.

PROBLEMS THAT CAN OCCUR WHEN ORGANIZING AND STORING INFORMATION

In the second step of the memory process, we organize and store the incoming information. If you think of your brain as a library (complete with a filing system for all the books), *new* books (pieces of information) are evaluated, cataloged, and put with other books of a similar nature. Books of fiction are stored in one section, nonfiction books are stored in another, and so on. The biggest problem that can occur at this stage is not knowing where to store a new piece of information. Let's say you just can't connect it to anything you've heard before. In that case, you're either going to have to open a new section of the library (which is hard work), or you'll just decide to let the information slide by and not store it.

Another problem that can occur at this stage is not being able to distinguish between main ideas and supporting details. What happens then is that you'll store all of the incoming information as if it had equal weight. But the ideas in a book or a lecture are not of equal importance. When storing information, supporting details should be placed *under* main ideas, not next to them.

PROBLEMS THAT CAN OCCUR IN RETRIEVING INFORMATION

In the third and final step of the memory process, you ask your brain to give you back a piece of information that you stored there earlier. Some people who are perfectly adept at perceiving and storing information have trouble retrieving it. **Failure to retrieve** is a term which means that the information is somewhere in your brain, but you don't know where. The thing is, you can't leave something in your mind indefinitely and then expect to retrieve it without some practice.

There are two theories which help explain why. The theory of **trace decay** says that the items in our memory, if not used, eventually fade away, much like newspaper print fades over a period of time. The **interference** theory contends that the activities we pursue immediately after learning something help to erase it from our memory.

HOW TO IMPROVE YOUR MEMORY

The following suggestions on improving your memory are attempts to overcome the problems that can occur at each of the three stages of the memory process.

Stage 1: Perceiving the information

1. Obviously, you won't be able to remember something if you're not exposed to it in the first place. If you're trying to pick up new information in a class, be sure to attend all of the lectures. If you have to miss a lecture, check to see if there's a recording of it that you can listen to. If there's no recording, borrow and copy someone else's notes. Better yet, see if you can borrow the professor's notes.
2. If there's a reading assignment to be completed before the lecture—*read it*! If you don't have time to read the entire chapter, then at least skim it. The more familiar you are with the material before you go into the lecture, the easier it will be for you to understand and catalog it.
3. Sit as close to the speaker as possible to maximize your chances of receiving the message accurately.
4. Take notes, and in your notes, distinguish between the main ideas and the supporting details. By listening for the speaker's oral clues and watching for the visual clues, you'll be able to tell which parts of the presentation the speaker thinks are important.
5. *Want* to take in the information. The first rule of remembering is to have an intense desire to remember.
6. Have a positive attitude toward the speaker and an open mind about the subject. It's easier to remember things we like and agree with; it's more difficult to remember something we don't like or we disagree with.
7. If you don't understand something the speaker has said, ask him to explain it. You can't learn if the material doesn't make sense to you.
8. In the case of learning a new term, repeat it as soon as you hear it. If you're introduced to a new word in the middle of a lecture, say it under your breath. This follows the principle set forth in an article by Gordon Bower in an issue of *Psychology Today* where he explains how to remember people's names:

> "... one component of the skill of learning people's names during introductions is that we must first explicitly attend to and register the name clearly as it is told to us. Most of us fail at this initial and most elementary step because we are preoccupied with the other tasks demanded by the occasion—shaking hands, smiling, planning the conversation ahead, or anticipating the next person to be met. In our preoccupation, the name fails to register clearly. So a first prescription would be that if you want to learn names, then you've got to reshuffle your "cognitive priorities" at the time of introduction and attend clearly to the name and repeat it aloud or to yourself. That, at least, is a beginning."

9. After the lecture, compare your notes with other students' and fill in any ideas you may have missed.

Stage 2: Storing the information

There are several techniques you can use to help organize and store information so that it'll be easier to recall:

1. Try to relate the new information to something in your past. The trick here is to associate the new material with an old, vivid memory that is easy to recall—then by recalling the old memory, you'll automatically evoke the new one. For example, if you're trying to learn the different kinds of psychoses for an abnormal psychology class, think of different people you've met in your life whose characters, if exaggerated, typify the various psychoses. Perhaps you'll never forget the summers you spent with your Aunt Agnes who always complained that people were following her ... always looked behind the drapes when she walked into a room ... never sat with her back to a door ... always kept her purse in her lap ... and had shifty eyes. For the rest of the course, then, instead of memorizing how someone who is paranoid behaves, think of your old Aunt Agnes.
2. If you have a list of things to remember, devise a **mnemonic**. Mnemonic devices are codes that let you store several pieces of information within a smaller one. You can make a mnemonic by taking the first letter of each of the terms you

need to remember and formulating a new word. For example, the word HOMES can be used to help you remember the five Great Lakes—Huron, Ontario, Michigan, Erie, and Superior. Another way to make a mnemonic is to make up a phrase such as "**E**very **G**ood **B**oy **D**oes **F**ine." E, G, B, D, and F are the lines on the upper staff in music. "Thirty days hath September . . ." is a mnemonic used to help schoolchildren remember the number of days in each month. "I before E except after C" is a quick way to remember how to spell words with "i's" and "e's" in them.

3. A third technique you can use to organize and store information is to create a mental picture of what it is you're studying. For example, without looking at a map, could you draw a picture of the country of Zaire? How about Canada? Russia? But if you were asked to draw a picture of Italy, you probably could. That's because your geography teacher probably taught you that the country is shaped like a boot. Now, every time you think of the shape of Italy, you see a mental image of a boot.

   Forming mental images is a technique used by memory experts to dazzle audiences. It's also used to train cocktail waitresses to remember their customers' orders. The technique they use is to connect the name of the drink with a physical characteristic about the person who ordered it. For example, in the movie *Information Processing*, the waitress remembers that a man ordered a martini because his hairline is in the shape of an M. When a woman orders two green olives in her drink, the waitress pictures two green olives in the place of the woman's eyeglasses.

   Another way to use mental imagery is to imagine yourself at the scene of whatever it is you're studying. For example, if you're studying the Yir Yorount aborigines in your sociology class, pretend that you're a young Yir Yorount warrior. Find out how tall you'd be, what you'd eat, how you'd spend your day, and what your religious customs would be like. If you're studying English history, pretend that you're Henry VIII or Anne Boleyn and try to react as you think they would have reacted to the problems they encountered. Imagining yourself doing the things you're studying about will get you emotionally involved with your learning.

   Mental imagery can also be used when you need to remember a list of items. What you do here is create a story that links the items together. The trick is to make the story as bizarre and unusual as possible so that your mental image will be easy to remember.

   Let's say that you want to remember the following fifteen items in the order in which they appear:

1. rodeo	6. water	11. banana
2. cow	7. rope	12. dirt
3. camel	8. eyeglasses	13. podium
4. lipstick	9. boots	14. footstool
5. sprinkler	10. sheet	15. telephone book

   One story you could use to recall those items might go like this: There's a *rodeo* and at this rodeo there are two events—one for *cows* and one for *camels*. All of the animals are wearing bright red *lipstick*. There's a *sprinkler* set up in the center of the arena, and when the cows come in, *water* comes out of the sprinkler and hits them, and their lipstick runs off. There's a cowboy who rides into the arena on a camel. He's holding a *rope* for reins, and he's wearing quite an unusual outfit—*eyeglasses, boots,* and a white *sheet*. He yells "whoopee ti eye oh" as he runs the camel around the arena and waves a *banana* in his right hand. The floor of the arena is made up of *dirt*. There's a master of ceremonies for the rodeo who's on a *podium* at one end of the room—he's sitting on a *footstool* and reading off the names of the contestants from a *telephone book*.

   This technique may sound a bit far-fetched, but it works. Research shows that people who use mental images remember things LONGER and BETTER than people who don't.

4. A fourth way to learn new material is by **rote**. Learning something by rote means repeating it over and over until you get it. Rote learning is difficult because there's no key to help you recall the information. Nor is the information stored with any real meaning behind it. There are some types of material, however, such as multiplication tables or foreign languages which must be learned strictly by repeating things over and over.

Stage 3: Retrieving the information

1. The only suggestion that can be given here is that you must practice retrieving what it is you want to remember. If you test yourself over the material daily, you'll have a chance to go back and refresh your memory if you haven't learned something well enough. *The sooner you get the material into your brain, and the more times you retrieve it, the longer it will stay with you.*

To extend that idea, it's far better to **distribute** your learning periods—that is, to learn a little bit every day—than it is to wait until the night before a test and try to cram everything into one study session. Learning everything at once is called **massed** learning. You may be able to store information in one study session, but if you do it the night before an exam, you haven't given yourself any time to practice retrieving it. Your only chance to retrieve it is at the test itself. And that can be rather risky.

2. As you test yourself, say the answers out loud. Hearing yourself say the material will help reinforce it in your mind. Even better, tell someone else what you've learned. When you *use* information, it becomes a part of you.

3. Learn more material than you actually need to know. Studies show that students who **overlearn** get higher scores on tests. The testing situation can be a scary one. If you've ever given a speech, you know that no matter how well you know the speech beforehand, you're going to forget some of it when you get up in front of an audience. The same thing happens in a test-taking situation. No matter how well you know the material, you may miss a question or two due to the test itself. That's why it's a good idea to know the material inside out. Also, you should be able to put the material in different words so that you won't be thrown if the professor paraphrases it on the test.

SAMPLE TEST QUESTIONS

Directions: Select the *best* answer and write the letter in the space provided.

_____ 1. Reading through your notes every evening before you go to bed is an example of a good study:
(a) syllabus
(b) attitude
(c) habit
(d) schedule
(e) skill

_____ 2. Another word (or words) for **rote** learning is:
(a) cramming
(b) distributed learning
(c) information processing
(d) massed learning
(e) repetition

_____ 3. "I before E except after C" is an example of:
(a) visual imagery
(b) learning by association
(c) a mnemonic device
(d) distributed learning
(e) information processing

_____ 4. When an instructor schedules frequent tests in his classes, he is helping his students:
(a) find the main ideas
(b) improve their attitudes about the material
(c) review
(d) get rid of biases they may have about the material
(e) improve their attitudes about the course

_____ 5. You meet someone on campus who you once knew quite well but haven't seen for a long time. You start to say "hi" but you can't remember his name. After a few seconds you finally admit you can't remember his name. He tells you and you slap your head and say, "Oh, *yeah*!!" This is an example of:
(a) lack of intent to remember
(b) failure to retrieve
(c) failure to store the information
(d) interference
(e) trace decay

_____ 6. Another word for **massed learning** would be:
(a) rote learning
(b) distributed learning
(c) mnemonic learning
(d) visual imagery
(e) cramming

_____ 7. What factor has the most influence on your college success?
(a) having effective study habits
(b) your degree of motivation
(c) having a strong academic background
(d) keeping up with your work and not falling behind in any of your classes
(e) having successful memorization techniques so you can learn the material

_____ 8. Procrastination is most likely an example of a bad study:

(a) attitude
(b) skill
(c) habit
(d) schedule

_____ 9. Which of the following LEAST affects how long you remember a piece of information?

(a) having an intent to remember
(b) knowing the main ideas
(c) having a thorough understanding of the information
(d) using a memorization technique to get the information from short-term to long-term memory
(e) using a memorization technique to get the information from long-term to short-term memory

_____ 10. One reason people can't remember material they've learned is because of **interference**. Interference is:

(a) similar to the concept of newspaper print fading over a period of time
(b) the fact that the events in your life that occur to you after you learn something tend to inhibit what you've learned
(c) a failure to retrieve the information even though it's stored
(d) not storing the information in a way that will be meaningful to you later on
(e) what happens to you when you try to learn too much material in too short a time—information overload

UNIT II

HOW TO IMPROVE YOUR LISTENING AND NOTE-TAKING SKILLS

INTRODUCTION TO THE UNIT

A lecture has been described as the process whereby the notes of a professor become the notes of a student without passing through the mind of either! The popular misconception about listening is that it's easy—that it's something you can do without any effort. In fact, many students think their jobs are done once they arrive at a lecture, take their seats, and open their notebooks.

The amount of work that should go into taking notes in a college lecture can be compared to that done by a baseball player trying to catch a fly ball. If the player really wants to catch the ball, he has to move to where the ball is coming down. And, once he gets there, he has to know how to catch it without dropping it. That requires both motivation and skill. Many college students sit and hope that the ball—their professor's ideas—will somehow just land in their laps.

In college, you cannot sit passively and expect information to drop into your head. Most lectures are not well organized, so in order to receive the professor's message, you must make a conscious effort. You must also develop a certain amount of listening *skill*. You must learn to:

1. Ask questions when you don't understand something.
2. Maintain eye contact with the speaker.
3. Use your thought speed wisely to keep your mind from wandering.
4. Watch for nonverbal clues that indicate which information is important.
5. Listen for verbal clues that indicate which information is important.
6. Use abbreviations when taking notes so you miss as little of the nonverbal communication as possible.
7. Organize your notes.
8. Compare your notes with other students in the class to increase their accuracy.
9. Relate what you hear to your past experiences.
10. Find some future use for the material so you'll remember it.

We'll begin by examining the listening process and presenting some suggestions for improving your classroom listening skills. We'll then present some suggestions for improving your note-taking skills.

UNIT OBJECTIVES

At the completion of this unit, you should be able to:

1. Explain each of Nichols' ten guides to good listening.
2. Define the term **thought speed** and explain how a student in a lecture can use his or her thought speed wisely.
3. Explain the relationship between the listening process and the learning process.
4. Compare and contrast in at least four ways the listening process and the reading process.
5. Explain what three things typically happen to information when it goes from one place to another, and give suggestions for preventing those things from happening.
6. List seven things that you can do to receive the information in a lecture as accurately as possible.
7. Suggest ten ways to increase the accuracy of lecture notes.
8. List six ways to find the main ideas in a lecture.
9. Write—and know the rules for writing—a formal outline.
10. Explain why it's important to know how to draw inferences when you read and when you listen.
11. Distinguish between a fact, an inference, and a judgement. Be able to change any fact into an inference or judgement, any inference into a fact or judgement, and any judgement into a fact or inference.
12. Provide the meanings for the abbreviations presented in the unit and a rationale for using abbreviations when taking notes.
13. Evaluate a page of sample lecture notes for strengths and weaknesses.
14. Listen to a thirty-minute lecture and take notes that are meaningful, well organized, and have the main idea.

LISTENING IS A 10-PART SKILL

Nothing equals an executive's willingness to listen, and learning how is an inside job

WHITE COLLAR workers, on the average, devote at least 40 per cent of their work day to listening. Apparently 40 per cent of their salary is paid to them for listening. Yet tests of listening comprehension have shown that, without training, these employees listen at only 25 per cent efficiency.

This low level of performance becomes increasingly intolerable as evidence accumulates that it can be significantly raised. The component skills of listening are known. They boil down to this:

Learning through listening is primarily an inside job—inside action on the part of the listener. What he needs to do is to replace some common present attitudes with others.

Recognizing the dollar values in effective listening, many companies have added courses in this skill to their regular training programs. Some of the pioneers in this effort have been American Telephone & Telegraph Co., General Motors Corporation, Ford Motor Company, The Dow Chemical Company, Western Electric Co., Inc., Methods Engineering Council of Pittsburgh, Minnesota Mining & Manufacturing Co., Thompson Products, Inc., of Cleveland, and Rogers Corp. of Connecticut.

Warren Ganong of the Methods Engineering Council, has compared trainees given a preliminary discussion of efficient listening with those not provided such discussion. On tests at the end of the courses the former achieved marks 12 to 15 per cent higher than did the latter.

A. A. Tribbey, general personnel supervisor of the Wisconsin Telephone Company, in commenting on the results of a short conference course in which effective listening was stressed, declared: "It never fails to amaze us when we see the skill that is acquired in only three days."

The conviction seems to be growing that upper-level managers also need listening skill. As Dr. Earl Planty, executive counselor for the pharmaceutical firm of Johnson & Johnson puts it: "By far the most effective method by which executives can tap ideas of subordinates is sympathetic listening in the many day-to-day informal contacts within and outside the work place. There is no system that will do the job in an easier manner. . . . Nothing can equal an executive's willingness to hear."

A study of the 100 best listeners and the 100 worst listeners in the freshman class on the University of Minnesota campus has disclosed 10 guides to improved listening. Business people interested in improving their own performance can use them to analyze their personal strengths and weaknesses. The 10 guides to good listening are:

1. Find areas of interest

All studies point to the advantage in being interested in the topic under discussion. Bad listeners usually declare the subject dry after the first few sentences. Once this decision is made, it serves to rationalize any and all inattention.

Good listeners follow different tactics. True, their first thought may be that the subject sounds dry. But a second one immediately follows, based on the realization that to get up and leave might prove a bit awkward.

The final reflection is that, being trapped anyhow, perhaps it might be well to learn if anything is being said that can be put to use.

The key to the whole matter of interest in a topic is the word *use*. Whenever we wish to listen efficiently, we ought to say to ourselves: "What's he saying that I can use? What worthwhile ideas has he? Is he reporting any workable procedures? Anything that I can cash in, or with which I can make myself happier?" Such questions lead us to screen what we are hearing in a continual effort to sort out the elements of personal value. G. K. Chesterton spoke wisely indeed when he said, "There is no such thing as an uninteresting subject; there are only uninterested people."

2. Judge content, not delivery

Many listeners alibi inattention to a speaker by thinking to themselves: "Who could listen to such a character? What an awful voice! Will he ever stop reading from his notes?"

The good listener reacts differently. He may well look at the speaker and think, "This man is inept. Seems like almost anyone ought to be able to talk better than that." But from this initial similarity he moves on to a different conclusion, thinking "But wait a minute. . . . I'm not interested in his personality or delivery. I want to find out what he knows. Does this man know some things that I need to know?"

Essentially we "listen with our own experience." Is the conveyer to be held responsible because we are poorly equipped to decode his message? We cannot understand everything we hear, but one sure way to raise the level of our understanding is to assume the responsibility which is inherently ours.

3. Hold your fire

Overstimulation is almost as bad as understimulation, and the two together constitute the twin evils of inefficient listening. The overstimulated listener gets too excited, or excited too soon, by the speaker. Some of us are greatly addicted to this weakness. For us, a speaker can seldom talk for more than a few minutes without touching upon a pet bias or conviction. Occasionally we are roused in support of the speaker's point; usually it is the reverse. In either case overstimulation reflects the desire of the listener to enter, somehow, immediately into the argument.

The aroused person usually becomes preoccupied by trying to do three things simultaneously: calculate what hurt is being done to his own pet ideas; plot an embarrassing question to ask the speaker; enjoy mentally all the discomfiture visualized for the speaker once the devastating reply to him is launched. With these things going on subsequent passages go unheard.

We must learn not to get too excited about a speaker's point until we are certain we thoroughly understand it. The secret is contained in the principle that we must always withhold evaluation until our comprehension is complete.

4. Listen for ideas

Good listeners focus on central ideas; they tend to recognize the characteristic language in which central ideas are usually stated, and they are able to discriminate between fact and principle, idea and example, evidence and argument. Poor listeners are inclined to listen for the facts in every presentation.

To understand the fault, let us assume that a man is giving us instructions made up of facts A to Z. The man begins to talk. We hear fact A and think: "We've got to remember it!" So we begin a memory exercise by repeating "Fact A, fact A, fact A. . . ."

Meanwhile, the fellow is telling us fact B. Now we have two facts to memorize. We're so busy doing it that we miss fact C completely. And so it goes up to fact Z. We catch a few facts, garble several others and completely miss the rest.

It is a significant fact that only about 25 per cent of persons listening to a formal talk are able to grasp the speaker's central idea. To develop this skill requires an ability to recognize conventional organizational patterns, transitional language, and the speaker's use of recapitulation. Fortunately, all of these items can be readily mastered with a bit of effort.

5. Be flexible

Our research has shown that our 100 worst listeners thought that note-taking and outlining were synonyms. They believed there was but one way to take notes—by making an outline.

Actually, no damage would be done if all talks followed some definite plan of organization. Unfortunately, less than half of even formal speeches are carefully organized. There are few things more frustrating than to try to outline an unoutlineable speech.

Note-taking may help or may become a distraction. Some persons try to take down everything in shorthand; the vast majority of us are far too voluminous even in longhand. While studies are not too clear on the point, there is some evidence to indicate that the volume of notes taken and their value to the taker are inversely related. In any case, the real issue is one of interpretation. Few of us have memories good enough to remember even the salient points we hear. If we can obtain brief, meaningful records of them for later review, we definitely improve our ability to learn and to remember.

The 100 best listeners had apparently learned early in life that if they wanted to be efficient note-takers they had to have more than one system of taking notes. They equipped themselves with four or five systems, and learned to adjust their system to the organizational pattern, or the absence of one, in each talk they heard. If we want to be good listeners, we must be flexible and adaptable note-takers.

6. Work at listening

One of the most striking characteristics of poor listeners is their disinclination to spend any energy in a listening situation. College students, by their own testimony, frequently enter classes all worn out physically; assume postures which only seem to give attention to the speaker; and then proceed to catch up on needed rest or to reflect upon purely personal matters. This faking of attention is one of the worst habits afflicting us as a people.

Listening is hard work. It is characterized by faster heart action, quicker circulation of the blood, a small rise in bodily temperature. The overrelaxed listener is merely appearing to tune in, and then feeling conscience-free to pursue any of a thousand mental tangents.

For selfish reasons alone one of the best investments we can make is to give each speaker our conscious attention. We ought to establish eye contact and maintain it; to indicate by posture and facial expression that the occasion and the speaker's efforts are a matter of real concern to us. When we do these things we help the speaker to express himself more clearly, and we in turn profit by better understanding of the improved communication we have helped him to achieve. None of this necessarily implies acceptance of his point of view or favorable action upon his appeals. It is, rather, an expression of interest.

7. Resist distractions

The good listeners tend to adjust quickly to any kind of abnormal situation; poor listeners tend to tolerate bad conditions and, in some instances, even to create distractions themselves.

We live in a noisy age. We are distracted not only by what we hear, but by what we see. Poor listeners tend to be readily influenced by all manner of distractions, even in an intimate face-to-face situation.

A good listener instinctively fights distraction. Sometimes the fight is easily won—by closing a door, shutting off the radio, moving closer to the person talking, or asking him to speak louder. If the distractions cannot be met that easily, then it becomes a matter of concentration.

8. Exercise your mind

Poor listeners are inexperienced in hearing difficult, expository material. Good listeners apparently develop an appetite for hearing a variety of presentations difficult enough to challenge their mental capacities.

Perhaps the one word that best describes the bad listener is "inexperienced." Although he spends 40 per cent of his communication day listening to something, he is inexperienced in hearing anything tough, technical, or expository. He has for years painstakingly sought light, recreational material. The problem he creates is deeply significant, because such a person is a poor producer in factory, office, or classroom.

Inexperience is not easily or quickly overcome. However, knowledge of our own weakness may lead us to repair it. We need never become too old to meet new challenges.

9. Keep your mind open

Parallel to the blind spots which afflict human beings are certain psychological deaf spots which impair our ability to perceive and understand. These deaf spots are the dwelling place of our most cherished notions, convictions, and complexes. Often, when a speaker invades one of these areas with a word or phrase, we turn our mind to retraveling familiar mental pathways crisscrossing our invaded area of sensitivity.

It is hard to believe in moments of cold detachment that just a word or phrase can cause such emotional eruption. Yet with poor listeners it is frequently the case; and even with very good listeners it is occasionally the case. When such emotional deafness transpires, communicative efficiency drops rapidly to zero.

Among the words known thus to serve as red flags to some listeners are: mother-in-law, landlord, red-neck, sharecropper, sissy, pervert, automation, clerk, income tax, communist, Red, dumb farmer, pink, "Greetings," antivivisectionist, evolution, square, punk, welsher.

Effective listeners try to identify and to rationalize the words or phrases most upsetting emotionally. Often the emotional

impact of such words can be decreased through a free and open discussion of them with friends or associates.

10. Capitalize on thought speed

Most persons talk at a speed of about 125 words a minute. There is good evidence that if thought were measured in words per minute, most of us could think easily at about four times that rate. It is difficult—almost painful—to try to slow down our thinking speed. Thus we normally have about 400 words of thinking time to spare during every minute a person talks to us.

What do we do with our excess thinking time while someone is speaking? If we are poor listeners, we soon become impatient with the slow progress the speaker seems to be making. So our thoughts turn to something else for a moment, then dart back to the speaker. These brief side excursions of thought continue until our mind tarries too long on some enticing but irrelevant subject. Then, when our thoughts return to the person talking, we find he's far ahead of us. Now it's harder to follow him and increasingly easy to take off on side excursions. Finally we give up; the person is still talking, but our mind is in another world.

The good listener uses his thought speed to advantage; he constantly applies his spare thinking time to what is being said. It is not difficult once one has a definite pattern of thought to follow. To develop such a pattern we should:

- *Try to anticipate what a person is going to talk about. On the basis of what he's already said, ask yourself: "What's he trying to get at? What point is he going to make?"*
- *Mentally summarize what the person has been saying. What point has he made already, if any?*
- *Weigh the speaker's evidence by mentally questioning it. As he presents facts, illustrative stories and statistics, continually ask yourself: "Are they accurate? Do they come from an unprejudiced source? Am I getting the full picture, or is he telling me only what will prove his point?"*
- *Listen between the lines. The speaker doesn't always put everything that's important into words. The changing tones and volume of his voice may have a meaning. So may his facial expressions, the gestures he makes with his hands, the movement of his body.*

Not capitalizing on thought speed is our greatest single handicap. The differential between thought speed and speech speed breeds false feelings of security and mental tangents. Yet, through listening training, this same differential can be readily converted into our greatest asset.

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LISTENING: AN IMPORTANT LEARNING SKILL

WHAT IS COMMUNICATION?

Communication is an effort on the part of one person to share something—thoughts, feelings, beliefs, decisions, or knowledge—with another person. There are four ways that people communicate **verbally** with one another, and countless ways that we can communicate **nonverbally**. Our verbal communication skills include speaking, reading, writing, and listening. Of those four, speaking and writing are considered to be **expressive** communication skills; you are sending a message *to* someone. Listening and reading are considered to be **receptive** communication skills; you are receiving someone else's message.

According to some communication specialists, the meaning of a message is communicated more through nonverbal channels—tone of voice, rate, volume, facial expression, gestures, posture, etc.—than through the actual words that are spoken.

HOW OFTEN DO WE USE OUR LISTENING SKILLS?

According to a study done at Ohio State University, people spend 45% of their day listening to something. They spend 30% of the day speaking, 16% of the day reading, and 9% of every day writing.

Even though we use our listening skills more than we use our speaking, reading, or writing skills, we spend the least amount of time on their development. For example, how many listening courses have you taken? Probably none. But listening is a skill that can be improved with practice.

WHAT'S THE DIFFERENCE BETWEEN HEARING AND LISTENING?

Hearing involves the perception of sound and takes place mainly in the ear. Listening involves the interpretation of those sounds and takes place mainly in the brain. The ear picks up sound waves from a speaker and changes them into

nerve impulses, which are sent to the brain. The brain then decodes the speaker's message by translating the nerve impulses into words and giving meaning to those words.

We listen with our eyes as well as with our ears. The information we take in by looking at the speaker can add a great deal to the verbal message.

Listeners also use their past experiences to decode the speaker's message. To the extent that speaker and listener share similar experiences, the message that the listener receives will be similar to the message the speaker has sent. But when two people come from different backgrounds, ethnic groups, parts of the country, educational levels, or are different ages, it becomes harder for the speaker to send a message that the listener will truly understand.

HOW MANY WAYS CAN WE LISTEN?

There are four situations where we use different listening skills. First, we can listen for appreciation or **enjoyment**. An example of this would be listening to your favorite music. You might attend a symphony with an audience full of music lovers, or you might lie on your couch and listen to your favorite album.

The second reason we listen is to gain **information**. Here your purpose is quite serious. An example of listening to gain information is attending a lecture. You are usually alert, sitting upright in a hard chair, and poised over a tablet of paper to take notes.

Third, we can listen **empathically**, or to increase our understanding. When you listen empathically, you put yourself in the speaker's shoes and try to feel what the speaker is feeling. Close friends use this kind of listening when one is sharing a personal problem with the other.

And fourth, we can use evaluative, or **critical**, listening skills. Play critics, conductors, and speech teachers have highly developed critical listening skills. They listen to determine what's good and offer suggestions for improvement.

WHY IS INFORMATIVE LISTENING DIFFICULT?

There are many reasons why it's hard to listen to gain information. These problems can be divided roughly into the following six categories:

1. **Low Motivation.**
   You don't want to be there, you have a negative attitude, you're in a bad mood, you're tired.
2. **Information-related problems.**
   You have no previous experience with the topic, the information is over your head, you don't like the topic, the material contradicts what you believe, the material is too easy, you're bored, you have trouble seeing the structure of the lecture.
3. **Speaker-related problems.**
   You don't like the speaker, the speaker has a distracting style or distracting mannerisms, the speaker talks too fast or uses technical language without explaining it.
4. **External distractions.**
   Other people are making noise, you're tempted to gaze out the window, the person behind you is tapping your chair with his foot.
5. **Internal distractions.**
   You have something more pleasant to think about, you don't feel well, you're thinking about a personal problem, you can process information faster than the speaker can talk so you use the extra time to daydream.
6. **Environmental problems.**
   The room's too hot, the chair's too hard, the acoustics are poor, you can't hear the speaker.

HOW ARE THE LISTENING AND READING PROCESSES SIMILAR?

There are many similarities between reading and listening. They are both receptive communication skills; they are both means for taking in information. We also read and listen for enjoyment, to increase our understanding of others, and to evaluate. Both reading and listening are objects of a popular misconception—that they're passive, as opposed to active,

skills. Actually, since they're thinking processes, they both require some degree of concentration and skill. And usually the harder you work at them, the more accurately you'll receive the speaker's—or author's—message. And finally, whether we're reading or listening, we rely on our past experiences to make sense out of the material.

HOW DO LISTENING AND READING DIFFER?

There are many differences between taking in information by reading and taking in information by listening. In a lecture situation, students listen in a group and are positively or negatively affected by that group. When you read a textbook, however, you usually read alone. Students don't have much control over the time or setting of a lecture. You *can* control those things when you read. Also, listeners are at the mercy of the speaker's pace while readers can progress at their own pace.

Depending on the size of the class and the instructor, listeners may be able to interact with the speaker. When a student doesn't understand a particular point, the professor may be able to restate it in different words. Readers can also go back and re-read when they don't understand something, but the information will remain in the same words. Listeners also have the advantage of a speaker's inflection, tone of voice, rhythm, facial expressions, and gestures. Readers must rely on the printed message alone.

WHAT HAPPENS WHEN INFORMATION IS TRANSFERRED?

Three things can happen to information when it goes from one place to another. It can get lost, it can be distorted, and things can be added to it. Because of these problems, you can never receive a message exactly as the speaker had intended it. At best, you'll receive a message which is similar.

There are several things a speaker can do to prevent the loss or distortion of information. First, he can preview the information—that is, he can tell the audience what he's going to say before he actually says it. A good speaker will also be systematic in giving details, repeat his main points, and use more than one medium of presentation (visual aids, handouts, chalkboard, overhead, etc.) It also helps when the speaker uses internal summaries, asks questions of the audience to test their understanding, and uses examples that the audience can relate to.

HOW TO TAKE NOTES FROM A LECTURE

1. **Have a different notebook for every class.**
   Notebooks come in many sizes and varieties. Buy ones with pages large enough so you won't have to continually keep turning them. If you like colored paper, buy notebooks with your favorite colored paper. Spiral notebooks are good because the pages won't fall out if you drop them. Some notebooks also have pockets where you can store handouts or any loose papers associated with the course.

2. **Read the assignment before going to class.**
   This will make a tremendous difference in the ease with which you take notes and the accuracy of your notes. If you don't have time to read the entire chapter before the lecture, at least skim through it to get the general idea.

3. **Sit in the front of the classroom.**
   This will help you maintain eye contact with the professor and put you in a better position to pick up on his nonverbal clues. Also, it will help you resist distractions and keep your mind on the lecture.

4. **Write the date and title of the lecture at the top of the page.**
   You should be able to get the title of the lecture from the course syllabus. Also, write down any other important information, like the name of the guest speaker or the title of the movie.

5. **Make an effort to organize your notes.**
   Start main ideas at the left margin of your paper and indent the supporting details—names, dates, places, examples. When the professor moves on to another main idea, skip a line and start again at the left margin. Most lectures are not organized, which makes it extremely difficult to take well-organized notes. Do the best you can. If the professor backtracks and starts talking about an idea he or she presented earlier, go back and insert the material where it belongs.

6. **Use abbreviations.**

The faster you can write things down, the better. It's hard to listen and take notes at the same time, so the less time you spend writing, the more time you'll have to listen to the lecture. Don't write in complete sentences—only write down key ideas and phrases.

7. **Use your own words, except for technical vocabulary.**

Translate the ideas you hear into your own words before you write them down. Let's say the theme of the lecture is "the pervasiveness and interrelatedness of social organization and hence its fragility." In that case you might want to write down something like this:

THEME: Social organization is everywhere and interrelated. Also *very* fragile.

Technical information should be recorded without changes. In a sociology class, for example, you should not change a term such as "kinship roles."

8. **Leave room if you missed something so you'll know to go back and fill in the information.**

Don't just skip something if you're not sure what you heard—it might appear on your next test. Write down what you *think* you heard—or leave a blank space and check with someone after class.

9. **Think about what you're hearing in terms of your own experiences.**

What do you have in your past that's similar to what the professor is saying? Do your experiences contradict or support? If you can find similar experiences in your background, it'll help you remember the professor's ideas.

10. **Learn when NOT to write something down.**

Whenever the professor goes off on a tangent, learn to put your pen down and relax. Stories, jokes, and sentences that begin with the phrase "That reminds me of the time . . . " are usually tangential material not directly related to the topic. Professors who usually stand when lecturing will often sit on the edge of their desks when they're saying something that's of lesser importance.

11. **Learn to distinguish facts from opinions.**

You should base your opinions on facts rather than on someone else's opinion.

12. **Ask questions.**

Information has a habit of changing when it goes from one person to another. If you hear something that doesn't sound right, ask your professor to explain it. Or, if you miss something because the professor's going too fast, ask her to repeat it. Some professors don't like to be interrupted in the middle of their lectures. In that case, make a note of your question and ask the professor after class or during your next recitation session.

13. **Write only on the front side of the paper.**

Writing on the backs of pages can be awkward when you have to rest your arm on the spiral ring of a notebook. Also, in magazines, ads that appear on the front side of the page cost more than ads that appear on the back. That's because your eye is drawn to the right side of the page. You attend better, and hence may be able to remember the material better.

14. **Recopy your notes as soon as possible.**

When writing notes, you're taking the professor's lecture apart into discrete little pieces. After the lecture, you need to put it back together again. Go over your notes with someone after class and fill in anything you may have missed. If you need to reorganize your notes, this is a good time to do that. Then, read through your notes before you go to bed. It'll only take a few minutes, but the review will help imprint the material into your brain. Also, read through your notes periodically to keep the material fresh. Don't put your notes in a drawer and pull them out the week before the test. Then you'll have to learn the material from scratch.

15. **Record the lecture on audiotape.**

It might be that the material is so complicated that you need to listen to it twice. Check with your professor to see if it's all right to bring a small tape recorder with you to class. Or, ask your professor to consider putting a copy of the lecture in the library. A third idea—if the professor teaches more than one section of the class—would be to attend the lecture twice.

16. **Volunteer in class when your professor asks for a volunteer.**
Also, try to answer a question or two every class period if you have a chance. Not only does it make the time go faster, but it will help you to remember the material.

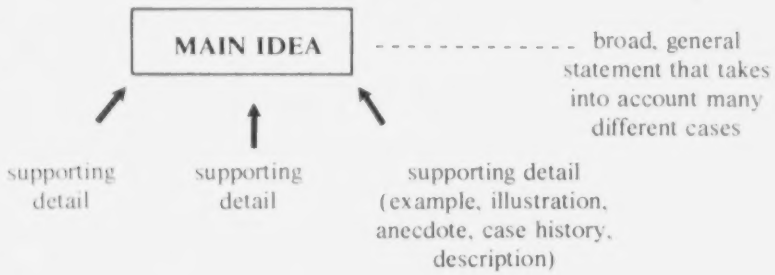
17. **Don't loan your notes to anybody.**
Some students have loaned their notes to other students and have never seen them again. If someone wants to borrow your notes, either photocopy them or sit with the person and explain them.

HOW TO DISTINGUISH BETWEEN MAIN IDEAS AND SUPPORTING DETAILS

Every lecture has a main idea. Likewise, movies, books, articles, and essays all have main ideas. Usually a professor will state the main idea of the lecture. But occasionally the professor will forget. Or, he/she may lead you right up to the main idea but deliberately stop short of stating it.

Many professors give the main idea in their opening remarks, so if you get to class late or take too long to get settled, you may miss it. Other professors prefer to weave a story and present the main idea at the end of the class. So, if you're thinking about your next class or putting your coat on, again, you're going to miss it.

Main ideas are broad generalizations that take into account a large number of cases. But they're no good without support. A lecturer or author must defend his generalizations with proof.


MAIN IDEA
broad, general statement that takes into account many different cases
supporting detail
supporting detail
supporting detail (example, illustration, anecdote, case history, description)

This proof comes in the form of specific incidents—examples, illustrations, anecdotes, case histories, and descriptions. The more support you have for your main idea, the more convincing you'll be.

For example, let's say you want to persuade someone to sit in the front row in his classes. Your thesis would be: "Good students sit in the front of their classes." To be persuasive, you'd have to offer some proof. Your listener is going to want to know *why*. One piece of proof you can give is your personal experience—"It's worked for me." Another piece of support would be to interview faculty members and see if they have more positive feelings about students who sit in the front of their classes. A third kind of proof would be to do some reading in the area of study skills. See if any experiments have been done where students got higher grades in a course when they sat in the front. You *can* present main ideas by themselves, but they're much more effective when they're backed up with evidence.

In the following diagrams, the umbrella represents the main idea in a lecture; the raindrops represent the details the professor uses for support. A professor can organize a lecture in one of two ways:

DEDUCTIVE REASONING **INDUCTIVE REASONING**

When a professor presents the main idea at the beginning of the lecture and spends the remainder of the lecture proving it, he's using **deductive reasoning**. In **inductive reasoning** the professor begins with facts. He then adds the facts together and draws an inference or conclusion. (Remember that in *in*ductive reasoning, the raindrops fall *into* the umbrella.)

Let's say for a moment that your instructor gives eights students each a 3 x 5 index card with a fact written on it. What would a logical assignment be? To memorize the facts on the eight cards? Probably not. More likely it would be for the eight people to get together and find the similarities among the eight facts. This is an example of inductive reasoning.

Besides placement (at the beginning or at the end), there are other ways to pick out the important points of a lecture. Professors often provide verbal clues, "Now get this," "This is very important," "Pay particular attention to this," or "Here are some things to be sure to remember." Students' ears automatically perk up when they hear the phrase "This is going to be on the next test."

Another way to figure out what is important is to notice changes in the professor's delivery—especially in speed or volume. Professors will frequently slow down when presenting an important idea to give you a chance to write it down. They may also increase their volume, gesture with their arms, or change the position of their bodies. For example, if they were sitting, they'll stand. If they were standing, they'll move to the board. Some professors have the habit of walking back to their desks or to the podium to check their notes on an important point. Repetition is another tip-off that professors think an idea is important. So is their writing it on the board, on a handout, or on an overhead projector.

There are certain clues that your professor may give to warn you that the information is a supporting detail. He may say "for example," "for instance," or "you can see this in the case of." Sometimes a professor will present a broad theory or generalization and then expect the class to come up with an example.

When taking notes from a lecture, you should try to distinguish between the main ideas and the supporting details. Main ideas should start at the left margin of the paper; supporting details should go underneath. Sometimes the professor will talk so fast that it'll be all you can do to take notes in any form. If that's the case, then recopy your notes after class and organize them as you recopy. *The more structure you can impose on the material, the better you'll understand it.*

The sample class notes on the next page were taken by a student who did not distinguish between main ideas and supporting details. According to this student, the lecture had ten separate, unrelated ideas. That was not the case. The student also missed the lecture's main point—the fact that social order is extremely fragile.

The notes on the following page are a little better. First, the student has identified the main point of the lecture near the top of the page. He's drawn attention to it by underlining it. The main point of the lecture is clearly identified again at the bottom of the page. Information on the stone axe, an important point in this lecture, is easy to locate. And the notes are well organized. Supporting details are placed underneath main ideas.

PRACTICE FINDING MAIN IDEAS

To help you practice distinguishing between main ideas and supporting details, turn to the exercise that follows the sample class notes. Five paragraphs from a sociology textbook have been scrambled. What you must do is put the sentences back in their correct order, starting with the topic sentence. In all five cases, the topic sentence is the first sentence of the paragraph. When you've completed that activity, try putting the five paragraphs in their correct order. The paragraphs are from a summary of a chapter entitled "Socialization."

SAMPLE CLASS NOTES

Soc. 100
2/13/8-
1:30 - 2:20

The Ujir Yuwunts

European expedition by the Dutch on Abarigones discovered that they use certain types of tools.

Only adult males were allowed to make axes.

They traded with neighboring tribes for flint and other goods.

The axes were used for hunting and gathering of wood.

The job of woman and children were to gather wood, build fires, and build huts.

They lived in a desert type setting with no permanent type of living quarters.

the women were extremely dependent on the men.

The men traded with on certain person and if he died he chose another partner.

The stone axes were replaced by the steel ones the missionaries gave them, but the didn't only give them to the men the gave them to women and children to.

This upset the family and destroyed the religious system because the women didn't have to ask the men for axes, they had their own.

SAMPLE CLASS NOTES

2-8-8-
Reece McGee

HOW TO BREAK UP A FAMILY WITH AN AXE

have been talking about social organization
movie about baboons - division of labor
social statuses based on age & sex

main pt.: every society has a social organization
(i.e. ppl act & interact in organized ways to maintain order)

this lecture: Yir Yorount - Australian aborigines

preview: this society had such a rigid social organization that they couldn't adjust to one technological change - were wiped out in less than 2 generations.

primitive ppl
culture never changed for 1,000s of years

stone axe was central to their society
- it belonged to men; symbol of masculinity
- it was used by women to gather firewood; est. her ID
- showed how society was organized
- there was a specific order of borrow - husband, father, etc.
- central item of trade among tribes
- system of kinship roles, trade roles, and sex roles

analogy - borrowing family car

Role of religion - need to know it to understand Y.Y.
Two kinds of time (1) "now" time (2) "dream" time
everything was "fixed" - constant reliving of a scenario
CHANGE IN THEIR SOCIETY WAS IMPOSSIBLE!

1915 - missionaries came and brought steel hatchets - gave them to women!
What happened: Kinship network fell apart
trade relations broke down
religious beliefs fell apart
w/in 35 yrs., whole tribe died out!
main pt.: social order is fragile (in this case, it didn't take a very big change to wipe out the culture)

UNSCRAMBLING SOCIOLOGY PARAGRAPHS

PARAGRAPH A:

1. Psychiatrists and sociologists are anxious to improve their knowledge of the socialization process in older people in order to learn how personality organization can be maintained through the last years of life.
2. The processes of socialization by which adults make these transitions are not well understood.
3. In old age the loss of many former roles creates an identity crisis and again requires the formation of new habits and attitudes.
4. Adult socialization tends almost inevitably toward discontinuity and conflict, for the individual must move quickly into changing role relationships of fundamental importance.
5. Job requirements, the marital relationship, parenthood and so on necessitate major adjustments in orientation.

PARAGRAPH B:

1. The family and the school, for example, have a special mandate from society to train new generations of members—to teach the knowledge, skills, attitudes, values, and general orientations that are needed to function effectively as an individual and group member.
2. Every group in which the individual participates serves as an agent of his socialization, but some have a greater influence than others.
3. Not all of the learning that takes place in these settings is intended, however, and some of it may run counter to the norms and values that the society formally supports.

PARAGRAPH C:

1. What an individual learns in any of these contexts depends on the total pattern of his socializing experiences.
2. Desire for the esteem of one's close friends exerts a strong pressure for conformity to their standards.
3. Groups with specialized goals, such as business organizations and the armed services, are often important agents of socialization in adulthood, remolding the attitudes and behavior patterns of the individual so that he will function effectively in a specified role.
4. Peer groups have a special importance as agents of socialization during all stages of life, simply because the individual values them so highly as sources of emotional support.

PARAGRAPH D:

1. Because each individual participates in a different combination of groups and subcultures, and because each responds to his social environment in his own way, socialization produces a wide range of personality configurations and behavior patterns.
2. From a societal perspective, socialization is necessary to ensure social order and the continuity of culture from one generation to the next.
3. Socialization is the complex process of social learning whereby an individual internalizes the norms, values, beliefs, and expectations of other society members.
4. The socialization process accounts not only for the likenesses among a society's members, however, but also for some of the differences.

PARAGRAPH E:

1. Socialization proceeds throughout the entire life span as the individual assumes changing roles and encounters changing needs and demands.
2. Adolescents, for example, are effectively isolated from adult society by various conditions of modern life and thus develop subcultures of many kinds.
3. Although anticipatory socialization helps people prepare for some of their future roles, often there is very little continuity between one stage of life and the next.
4. These subcultures play an important part in shaping the values and expectations of young people, but they may be dysfunctional in terms of preparing adolescents for their later roles as adults.

HOW TO WRITE A FORMAL OUTLINE[1]

In some of your college classes, you may be asked to write a formal outline. In a speech class, for example, your instructor may want to see an outline of your speech. In an English composition class, your instructor may want you to outline a theme before writing it. Even when an outline is not a course requirement, it would be foolish to undertake a lengthy project—like a term paper—without putting your ideas into some kind of order before you begin.

Outlining is also a good skill to develop for taking notes in class. Given a set of ideas—either orally or in print—you should be able to separate the main ideas from the supporting details. You should be able to determine which ideas are parallel and which are subordinate. When taking notes during class, you probably won't have time to put them into a formal outline. Nevertheless, it's important to know the rules for writing a formal outline in case you ever need to write one.

RULES FOR WRITING A FORMAL OUTLINE

1. Each unit in the outline should contain *one* item or statement. This is essential to the very nature of outlining. If two or three items or statements are run together under one symbol, their structural relationship does not stand out clearly.

Wrong

I. Groups with specialized goals, such as business organizations and the armed services, are often important agents of socialization in adulthood, remolding the attitudes and behavior patterns of the individual so that he will function effectively in a specified role. The family is also an important agent of socialization.

Right

I. Groups are important agents of socialization in adulthood.
   A. Examples of such groups are:
      1. Business organizations.
      2. The armed services.
   B. Functions of groups are to help the individual to function effectively in a specified role.
II. The family is an important agent of socialization in adulthood.

2. The items in the outline should be properly subordinated. Those statements or facts that are listed as subpoints under the larger heading should actually be subordinate to it in meaning and not of equal or greater importance. Every item should have a direct connection with the main point under which it appears.

Wrong

I. People under a great deal of stress can become ill.
II. The following are some common physical problems:
   A. Migraine headaches.
   B. Ulcers.
      1. Heart attacks.
   C. People can also suffer mental breakdowns when under too much stress.

Right

I. People under a great deal of stress can become ill.
   A. The following are some common physical problems:
      1. Migraine headaches.
      2. Ulcers.
      3. Heart attacks.
   B. People can also suffer mental breakdowns when under too much stress.
II. People under a great deal of stress can die.

[1]This material was adapted by H. Z. Scheele from *Principles and Types of Speech*, Monroe and Ehninger, for use in Communication 114, Purdue University.

3. The logical relation of the items in an outline should be shown by proper indentation. The greater the importance or scope of a statement, the nearer it should be placed to the left margin. If a statement takes up more than one line, the second line should be indented the same as the beginning of the statement.

Wrong

I. Parking is a problem on campus.
A. There are not enough places for professors to park, especially when they have to take handouts or audio-visual materials to class.
B. There are not enough parking places for handicapped students on campus who need direct access to ramps to enter and exit the buildings.
1. There are 200 handicapped students on campus and only 40 spaces reserved for them.
2. People who are not handicapped often park in these places, especially when they want to save time.
II. Bicycles are another problem on campus.

Right

I. Parking is a problem on campus.
A. There are not enough places for professors to park, especially when they have to take handouts or audio-visual materials to class.
B. There are not enough parking places for handicapped students on campus who need direct access to ramps to enter and exit the buildings.
1. There are 200 handicapped students on campus and only 40 spaces reserved for them.
2. People who are not handicapped often park in these places, especially when they want to save time.
II. Bicycles are another problem on campus.

4. A consistent set of symbols should be used. The traditional set of symbols used is:

I.
A.
1.
a.
(1)
(a)

Also, if you have a Roman Numeral I., you must have a Roman Numeral II. If you have an A, you must have a B. (And you may have a C or D . . .) If you have a 1., you must have a 2.

Wrong

I. A mental disorder is a mental condition that leads to behavior that deviates from what society regards as normal.
A. There are several theories about the causes of suicide.
1. Alienation.
2. Depression.

Right

I. A mental disorder is a mental condition that leads to behavior that deviates from what society regards as normal.
A. There are several theories about the causes of suicide.
1. Alienation.
2. Depression.
B. There are several theories about the causes of psychoses.
1. Social conditioning.
2. Psychodynamics.
II. There are many treatments for people with mental disorders.

UNSCRAMBLING THE OUTLINE

The following exercise will help you practice two study skills—separating main ideas from supporting details and writing a formal outline. The 23 statements below are an outline for a speech. Their order is scrambled; your assignment is to reorganize them into an outline that flows logically from beginning to end. Here are some hints to help you accomplish the task:

1. This is an outline for a speech. The speech has three parts—an introduction, a body, and a conclusion.
2. The three parts are not necessarily equal in length.
3. The speech begins by presenting a problem.
4. The main body of the speech is the solution to the problem.
5. The speech concludes with a "call to action." The speaker is urging his audience to *do* something.
6. Your answer should follow the rules for writing a formal outline.
7. Use punctuation clues to help organize the ideas.
8. Use parallel structure to organize the ideas.
9. When you've completed, write an original title for the outline.

23 STATEMENTS

1. Storage closets contain cleaning compounds, mops, and paint brushes.
2. Protection of your home from fire requires three things:
3. Begin your own clean-up campaign now.
4. Campaigns in Evansville kept insurance rates in a "Class 1" bracket.
5. You will benefit from the results of such a program.
6. Attics contain piles of clothing and combustible paper.
7. If you do not have a jar of oxygen around the house, try this:
8. Storage of oil mops, paint brushes, and cleaning compounds in fireproof containers.
9. Basements often contain dangerous piles of trash.
10. If you like to live dangerously, try this:
11. A campaign in Fort Wayne helped reduce the number of fires.
12. You will have neat and attractive surroundings.
13. Place a blotter soaked in turpentine in a jar of oxygen.
14. Garages attached to houses present hazards of spilled fuel.
15. Removal of all combustible materials from attic, closets, basement, and garage.
16. Home clean-up programs show practical results.
17. Your home will be safe from fire.
18. Place a well-oiled mop in a storage closet.
19. Your safety probably is threatened by some of these hazards in your home.
20. Immediately the blotter will burst into flames.
21. Checking regularly to see that trash does not accumulate.
22. In a few days the mop will burst into flames.
23. Few homes are free from dangerous fire hazards.

DISTINGUISHING AMONG FACTS, INFERENCES, AND JUDGEMENTS

One of the skills you need as a student is the ability to distinguish among statements of fact, inference, and judgement. You need to make these distinctions in order to be an intelligent and critical listener. Also, you're going to want to base *your* opinions about things on facts rather than on someone else's opinion.

A **fact** is a statement that's universally agreed upon by knowledgeable and rational people. According to one collegiate dictionary, facts can be:

> "(1) material objects or creatures at given places and dates,
>
> (2) happenings at given places and dates; or
>
> (3) processes verified by observation or experiment (e.g. Water freezes at 32°F. An injection of adrenalin makes blood clot faster.)"

A statement of fact is objective and unemotional. If you were asked to state a fact, your safest bet would be to select one from the fields of science or mathematics. It's a fact that two plus two equals four.

Facts can change over time. The first notion of the earth, for example, was that it was flat. When Columbus didn't fall off, people changed their minds and decided that the earth was round. In recent years, satellite pictures have shown us that the actual shape of the earth is more like a distorted sphere.

An **inference** is an educated guess based on one or more facts. If your roommate plays his stereo 24 hours a day (a fact that can be verified), you might infer that he likes music. If you see someone on campus wearing a corduroy jacket with patches on the elbows, carrying a briefcase and looking absent-minded, you might infer that he's a professor.

Since inferences are guesses, they can be right or wrong. However, the more facts you have, the more accurate your inferences will be. Knowing that the author of your textbook is presenting an inference rather than a fact can help you in your reading. *Therefore* is a clue word that lets you know you're dealing with an inference. So are the words *since, because, so,* and *probably.*

Judgements are statements that are personal and evaluative. They differ from facts in two important ways: they're emotional and they're personal. That means that not everybody is going to agree with them. For instance, it's a fact to say that someone is forty years old. You can check his birth certificate. It is a judgement to say that that person is old. What is old to you at age ten is not what is old to you at age thirty or forty! Judgements often begin with the phrases "I think" or "I feel" and frequently contain colorful adjectives. (e.g. He has *greasy* hair. This is *rotten* weather. This is a *nothing* course.) The term "better than" can also be a clue that a statement is an opinion, or judgement.

The worksheet that follows will give you some practice distinguishing among statements of fact, inference, and judgement. Once you understand these concepts, you should be able to write a statement of fact, inference, or judgement. Also, you should be able to change any fact into an inference or a judgement, any inference into a fact or a judgement, and any judgement into a fact or an inference.

WORKSHEET: FACTS, INFERENCES, AND JUDGEMENTS

Directions: Decide whether the following statements are facts (F), inferences (I), or judgements (J).

_____ 1. He must be the head coach because of the way he's yelling at the official.

_____ 2. *Penthouse* is the best magazine I've ever seen.

_____ 3. This test must be simple—I've answered the first ten questions correctly.

_____ 4. Today is Monday.

_____ 5. It's raining outside, so when I go out, I'm probably going to get wet.

_____ 6. Sulfuric acid burns the skin.

_____ 7. He must be a football player, he has an enormous build.

_____ 8. John has a suit on, so he must be going for a job interview.

_____ 9. The mailman is late.

_____ 10. Ron is quite fat, so he'll probably die young.

_____ 11. The roads are very slick.

_____ 12. It's dangerous to drive in New York City.

_____ 13. George Washington had wooden teeth.

_____ 14. Wooden teeth are better than ceramic teeth because they warp to fit your mouth.

_____ 15. If you weren't in class Monday, you must have been ill.

_____ 16. Anyone who misses this question is a bozo.

_____ 17. College students, in general, have above-average I.Q.s; therefore, most of the people in this class probably have above-average I.Q.s.

_____ 18. A person who eats a lot likes to eat.

_____ 19. Ohio State University is a large school.

_____ 20. I have a stomachache and a temperature—I must be getting sick.

USING ABBREVIATIONS WHEN TAKING NOTES

No one can write down everything that a professor says during a lecture, nor should you want to. Sitting for fifty minutes with your nose in a sheet of paper writing as fast as you can is not most people's idea of fun. Besides, a good bit of information is communicated nonverbally, and in order to receive the nonverbal message, you need to be watching the speaker.

On the other hand, since you're going to be tested over the material being presented, you'd better take some notes. And inevitably, whenever you start to write something down, the professor moves on to another idea and leaves you sitting there one idea behind.

One solution to the note-taking dilemma is to use shorthand or a system of abbreviations. That way you'll have notes for the entire lecture but you won't spend all your time writing. If you haven't already done so, develop a system of abbreviations that are meaningful to you. Here are some suggestions:

1. **Don't write down "filler" words such as "a," "an," and "the."**

2. **Use symbols in place of words.**

Ψ	psychology	¶	new paragraph
$	dollars, expensive, money	♂	male
✓	check, right, good, O.K.	♀	female
&	and	★	important
#	number	≈	approximately
@	at, each	Δ	change
"	ditto	→	therefore

3. **Use a wavy line (~~~) to indicate the suffix "ing."**

hear~	hearing	writ~	writing
read~	reading	speak~	speaking

4. **Use letters and numbers instead of words.**

2	to, two, too	R	are
4	for, four	C	see, sea
B4	before	U	you
Ez	easy	Y	why

5. **Shorten the word, or write only the first few letters of it.**

thru	through	no	know
hi	high	frosh	freshman
ppl	people	nite	night
ed	education	assist	assistant
lit	literature	psyc	psychology
prof	professor	dept	department

6. **Use the mathematical symbols.**

+	plus or positive	>	greater than
−	minus or negative	<	less than
=	equals	∴	therefore
≠	is not equal to	2×	twice or two times
//	parallel	%	percentage
∞	infinite	°	degree

7. **Use the conventional abbreviations.**

anon.	anonymous	ibid.	same as above
b.	born	i.e.	that is to say (id est)
b/c	because	il.	illustrated
$\overline{c}$	with	obs.	obsolete
c.	circa; about	p.	page
©	copyright	pp.	pages
contd.	continued	re:	regarding; in reference to
d.	died	[sic]	thus, so
ed.	editor, edition	syn.	synonym
e.g.	for example (exempli gratia)	vs.	versus
et. al.	and others (et alii)	w/	with
etc.	et cetera; and so forth	w/o	without

8. **Make up your own abbreviations—especially for terms you encounter frequently.**

× time, times

↑ increasing

↓ decreasing

? possible test question; or, not sure what was said—need to look into

→ leads to, causes

EVALUATING CLASS NOTES

Evaluate these notes using the guidelines that were presented in this unit.

How to Take a Test

- All tests are on the assumption that every ~~test~~ person will do his best on it.
- Test which aren't typical performance tests ~~if~~ intelligence, ability, etc.
- No substitute for knowing material.
- Work out a study ~~schedule~~ schedule.
- Develop a regular program habit:
- Do all studying
1 – Know a little more than you have to.
2 – Don't cram for standardized tests.
3 – Be in ~~good~~ good health and well rested.
4 – Have ~~a~~ a confident attitude
5 – Have ~~motiv~~ motivation.
6 – Listen to directions carefully
– Listen to orall notes and hints
7 – Be ~~sure~~ certain that you know ~~about~~ what to do.
Ask questions before tests begin
8 – Read examination carefully
9 – Keep track of time – bring a watch. Know ~~for~~ how long you have to work.

"Multiple Choice": guess on it. – Exception: "High Spead" tests

Tips:
T or F: – watch out for 100% questions or weak words (~~many~~ may, perhaps, etc.)
Watch for double negatives
Math Test: rule out ridiculous items
✓ Short T or F are usually false
✓ Long " " " " true,

Essay – read all questions. Which ones will you need most time on? At least write something.
✓ Briefly outline if you don't have time
✓ Write carefully
✓ Be on time to take tests
✓ Have adequate equipment
✓ Don't Blow Your Cool

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SAMPLE TEST QUESTIONS

Directions: Write the letter of the *best* answer in the space provided.

_____ 1. In a huddle during a football game, what kind of listening skills would the players probably be using?
(a) appreciation
(b) information
(c) enjoyment
(d) empathic
(e) critical

_____ 2. Listening is a/an:
(a) receptive communication skill
(b) expressive communication skill

_____ 3. Which listening skill would be most important for a student?
(a) informative
(b) empathic
(c) critical
(d) entertaining

_____ 4. Which listening skill would be most important for a conductor of an orchestra?
(a) informative
(b) empathic
(c) critical
(d) entertaining

_____ 5. According to Nichols' 10 guides to effective listening, "be flexible" means:
(a) listen for the main ideas, not just the details
(b) have several different systems for taking notes
(c) expose yourself to difficult, expository material
(d) try to overlook a speaker's delivery faults
(e) keep an open mind to new ideas

_____ 6. According to Nichols' 10 guides to effective listening, "find areas of interest" means:
(a) judge the content of the message, not the speaker's delivery
(b) listen for the main ideas, don't just memorize facts
(c) take courses in college that you're interested in
(d) forget about the parts of the lecture you disagree with; concentrate on the parts you agree with
(e) ask yourself: "What is the speaker saying that I can use?"

_____ 7. According to Nichols' 10 guides to effective listening, "exercise your mind" refers to the fact that:
(a) listening is hard work
(b) you must force yourself to keep a positive attitude and an open mind
(c) listeners have a tendency to attack a speaker when they hear something they disagree with
(d) poor listeners are inexperienced at hearing difficult material
(e) it's easier to daydream than to keep your mind on a boring subject

_____ 8. According to Nichols' 10 guides to effective listening, guide #3 ("hold your fire") corresponds most closely with:
(a) guide #4: listen for ideas
(b) guide #5: be flexible
(c) guide #6: work at listening
(d) guide #9: keep an open mind
(e) guide #10: capitalize on thought speed

_____ 9. Which of the following people would primarily use empathic listening skills in their work?

(a) a football coach
(b) a teacher
(c) a marriage counselor
(d) a librarian
(e) a musician

_____ 10. Which one of the following skills do people use most?

(a) speaking
(b) listening
(c) reading
(d) writing

_____ 11. A fire drill in the middle of your Chemistry 100 lecture would be what kind of listening problem?

(a) environmental
(b) information-related
(c) speaker-related
(d) internal distraction
(e) external distraction

_____ 12. Thought speed is a problem for a student listening to a lecture. Can you have the problem of thought speed when you're reading?

(a) yes
(b) no

UNIT III

HOW TO READ A COLLEGE TEXTBOOK

INTRODUCTION TO THE UNIT

Without looking, do you know the titles of your textbooks? How about the names of the authors? Are the authors still living? If so, what institutions are they associated with? How well known are they (or were they) in their fields? How recently were the books written? Who were they designed for? Students in introductory courses? Students majoring in that particular field? Non-majors? Do your books have glossaries in case you need a quick definition of a term as you're reading? What kinds of material are in the appendices? If you need to do further research on a topic, do you know how your books can help?

Most students are not on friendly terms with their textbooks. There are several reasons for this. First, the purchase of texts from the local bookstore is often a negative, if not horrendous, experience. Second, carrying a stack of books around campus all day can affect a student's disposition as well as his posture. Third, and most important, when students sit down to read their textbooks, they're not always sure what they're supposed to be doing. They know that books exist for a reason, but they're not sure what that reason is.

Students who don't know how to read their textbooks often say their books are boring. Books aren't boring—it's just a matter of knowing how to use them. To improve your attitude about books, you've got to put them in the proper perspective. Books are tools you can use to gain information. If you don't know how to use them, it'll take you awhile to find what you're looking for. On the other hand, once you do learn to use them, you'll be able to locate information quickly and efficiently.

In biology, students learn the physiology of a frog by dissecting one. Similarly, to understand the makings of a book, you need to take one apart and examine the various pieces. In this unit, you'll be taking different books apart to look for similarities. You'll also learn to use a system for reading which will let you control your textbooks rather than letting them control you.

Also in this unit, you'll learn how to find main ideas, how to adjust your reading speed to different types of material, how to draw inferences from what you read, and how to determine authors' feelings about their subjects.

There should be a noticeable difference between the way you approach your reading assignments *now* and the way you approach them at the end of this unit.

UNIT OBJECTIVES

At the completion of this unit, you should be able to:

1. Identify each of the sections of a textbook when given sections from different textbooks.
2. Define the twelve parts of a textbook and the ten parts of a chapter, and state the *function* of each of the parts.
3. List and explain the five steps of the SQ3R.
4. Justify the surveying step of the SQ3R.
5. Find the main ideas of an article or chapter by surveying it.
6. Diagram the five most common paragraph structures and explain the rules for underlining them.
7. Define the term **signal word** and explain how to use signal words when you read and write.
8. Know the five most common patterns of organizing ideas. Explain each of the patterns and give representative signal words from each category.
9. Identify the pattern of organization an author is using when given several short passages to read.
10. List and define ten of the most common author's tones.
11. Identify the author's tone in five different passages.
12. Describe three habits that slow readers down and suggest reading habits to replace them.

PARTS OF A TEXTBOOK

If you aren't already, you should become familiar with the different parts of a textbook, their location, and the kinds of information they usually contain. You should also learn the names for the different parts of a textbook chapter.

1. **Jacket**	A detachable paper cover that serves to protect the book's hard cover. Is designed to attract people's attention and get them to buy the book.
2. **Title page**	Usually the first page of the book. Contains the title of the book, the author's name, and the name of the publishing company. May also include the institution the author is associated with and the location of the publishing company.
3. **Copyright page**	Located on the back of the title page. States who holds the legal rights to the book and the date the book was first, and most recently, published.
4. **Preface**	A personal letter from the author to the reader. Tells the overall purpose of the book, why it was written, and who the prospective audience is. May explain the author's philosophy toward the subject. May explain the way the book is organized and give suggestions for reading it.
5. **Foreword or Introduction**	Usually written by the author, a close friend of the author, a supporter, or the publisher. Gives background material that the reader should know before starting the book.
6. **Table of Contents**	Describes the basic content of the book in outline form. What you should skim if you want to find out what's in the book.
7. **Chapters**	The individual sections of the book. The first chapter in a book is often an overview of the subject. The last chapter is often a summary and may contain a prediction of future events in the field. Most books are organized so that each chapter builds on the previous one; therefore, the book will make the most sense if the chapters are read in order.
8. **Acknowledgements**	May be located at the beginning or at the end of the book. This is where the author thanks the people who helped him or her.
9. **Bibliography**	The list of works consulted by an author in the production of the book. Also called **references.** Usually located at the end of the book; may be located at the end of each chapter.
10. **Glossary**	A dictionary explaining how the author wishes to define the terms used in the book.
11. **Appendix**	Any additional information that the author wants to include in the book. Located at the end of the book, it may contain math tables, answers to problems, a copy of the survey the author used to do research, etc.
12. **Index**	A list of specific topics, in alphabetical order, that appear in the book and the page numbers where they can be found.

PARTS OF A CHAPTER

1. **Chapter title**	The topic of the chapter. What you should think about before you start reading.
2. **Advance organizer**	A preview or summary of the chapter, which comes immediately after the chapter title and before the text. Usually differs in type set from the title and from the text. Is in sentence/paragraph form. This is what you should read if you're looking for the main idea of the chapter.
3. **Structured Overview**	An outline of the important concepts in the chapter. Located in the place of, or in addition to, the advance organizer. Usually differs in type set from the title and from the text. This is where the author tells you what the key words of the chapter are.

4.	**Objectives**	Statements of what the reader should be able to do, accomplish, or know as a result of reading the chapter. They, too, precede the text. Behavioral objectives often start with the words: "At the completion of this unit, the student will be able to . . ."
5.	**Chapter headings and subheadings**	The specific points that will be elaborated on in the chapter. By skimming these, you should get a pretty good idea what the important ideas in the chapter are.
6.	**Italicized words**	Publishers use italics instead of underlining for emphasis and to introduce new terminology.
7.	**Footnotes**	Notes of reference, explanation, or comment usually placed at the bottom of a page. The author may wait and list the footnotes at the end of the chapter.
8.	**Charts, graphs, illustrations, captions**	Supporting material in visual form. Captions usually serve as important summaries of the charts, graphs, and illustrations.
9.	**Summary**	A review of the main ideas in the chapter, placed at the end of the chapter.
10.	**Study questions**	A list of questions at the end of a chapter. Extremely helpful in telling you what the author thinks the main ideas of the chapter are.

HOW TO READ A TEXTBOOK USING THE SQ3R

Now that you're familiar with the different parts of a book, let's discuss how you can use them to improve your reading. Textbooks really aren't hard to read. They contain information that's organized according to a highly structured system, and if you follow that system when you read, they'll make sense.

The method you're about to learn, the SQ3R, may be time-consuming at first. It will require changing some of your reading habits. Specifically, it will force you to read parts of a book that you normally skip over.

But the benefits will be well worth the effort. There are at least four arguments for using the SQ3R when you read a textbook. First, you'll experience a tremendous increase in comprehension. The material you read will be easier to understand because you'll be aware of its structure. Second, after you learn the SQ3R method, you'll be able to turn to an assigned chapter and predict what will be on the next test. Third, with this method, you *study* at the same time you read, so once you read the chapter, you shouldn't have to go back and re-read it. And finally, because you know what you're doing, this method will make reading textbooks more enjoyable.

The five steps in the SQ3R method are (S) Survey, (Q) Question, (R) Read, (R) Recite, and (R) Review. The first step, the survey step, is by far the most important. Basically, what you do to survey a book is to read through the twelve items listed under "Parts of a Book," starting with the Jacket and ending with the Index. Some of these items, like the Acknowledgements, can be skimmed; others, like the Preface and the Table of Contents, should be read fairly carefully.

It's important to read a book's Preface because a preface can give you insight about the author. It may reveal where and when the author wrote the book, and how the book differs from other texts in the field. The Table of Contents will tell you what topics appear in the book and the order in which they appear. While you're surveying the book, turn to the back and see if there's a Glossary or an Index. These can be valuable time-saving aids once you start reading. Also, note the kind of information in the Appendix. If it's a math text, for example, you may be turning to this section of the book fairly often.

It doesn't take long to survey a textbook. It's something you should do at the beginning of every course, but it's also a skill that you can use in the library when you're doing research and you need to decide which books to check out. In selecting a book, you might want to read or skim the first chapter, since the first chapter is frequently an overview of the entire book.

Besides surveying a book, you can also survey the individual *chapters*. Do you ever count the number of pages in a chapter before you begin to read? Well, that's one way to survey the chapter. You're trying to gauge how long the chapter is before you start to read it. Many people survey things before they do them. Before you drive to a city you've never been to before, you look at a map and plan the route you're going to take. The day before a tournament, professional golfers walk through the course to get a feel for it.

To survey a chapter in a textbook, you simply read the ten items listed under "Parts of a Chapter." Begin by examining the chapter title. Read the title, then close your book and try to think of everything you know about that subject. For example, if the title of a chapter in your psychology text is "Intelligence," try to remember the first time you encountered that term. What was the context? What are some synonyms for the word "intelligence"? Do you think people inherit their I.Q.s, or is intelligence something that can be developed? Are women smarter than men? Does shoe size have any relationship to intelligence? Have you ever taken an I.Q. test? If so, what was your score?

You can make this exercise more concrete by writing the ideas you come up with in the margin next to the chapter title. You could write something like: "male vs. female?" or "shoe size?" Think of it as a game, with your goal being to go back after you've read the chapter to see how many of your predictions came true.

The time you spend thinking about the title establishes a frame of reference for you before you begin reading. Learning new ideas will be easier because you now have a place to store them in your memory. Also, by doing this you'll start to get excited about the chapter and *want* to start reading it. *Does* shoe size have anything to do with intelligence?

When you've thought about everything you know about the title, open your book again and read any preview or introductory material. These would be things like advance organizers, structured overviews, behavioral objectives, or introductory questions. If the chapter doesn't contain any of these aids, turn to the end and read the summary. The importance of reading an overview first was shown in studies of how college students read their textbooks. Invariably, students earning low grades in college reported that the first thing they read in a chapter was the first sentence. Students earning high grades in college reported that they started reading a chapter by first turning to the end and reading the summary.

Publishers often try to help readers by placing summaries of the chapter *before* the actual text begins. Poor readers insist on skipping this information; good readers find that a chapter makes a lot more sense if they read a summary of it first.

After you read the preview material, go through the chapter and read the headings, subheadings, italicized words, charts, graphs, illustrations, and captions. Again, this will help you to understand the chapter when you finally start to read it. During this step, you may encounter some of the key words and ideas in the chapter for a second time—the first time was when you previewed the chapter. See if you can figure out the graphs and charts on your own, paying particular attention to the captions. Captions often explain a complicated concept in one clear sentence. Last, read through the study questions at the end of the chapter. Study questions are a present from the author to the reader—they tell you what the most important concepts in the chapter are.

Once you've read the study questions, you've completed the **survey** part of the SQ3R. It should take anywhere from ten to twenty minutes to survey a chapter. If you ever run into a situation where you're going to have a test on ten chapters from your history book, the test is tomorrow, and you haven't read any of the chapters yet, your best bet would be to go through and survey each of the ten chapters. Professors usually test on main ideas. When you survey a chapter, that's what you're picking out.

Depending on the amount of time you've spent surveying the chapter, you may want to take a break before continuing with the next four steps of the SQ3R.

The second step of the SQ3R is the **question** step. Literally, what you do here is take out a sheet of paper and write down a list of questions that you want to know the answers to. These questions can be developed using the five "W's"—who, what, where, when, why and how—and the headings and subheadings of the chapter. For example, if one of the headings in your educational psychology book is "The Relationship Between Memory and Study Skills," your question might be: "What is the relationship between memory and study skills?" Some textbooks already have questions in them—either within or at the end of the chapter. Regardless whose questions you use, questioning is an important step in the SQ3R. In fact, this is the whole trick! QUESTIONS GIVE YOU A REASON TO READ THE MATERIAL!!! Under your old system, you had no *reason* to read.

Now that you have an overview of the chapter and a list of questions you want answered, you're ready to move on to the third step of the SQ3R, the step where you actively **read** the material. As you read, try to involve yourself in the material. Look for the author's pattern of organization, put brackets around main ideas, underline supporting details, and most importantly, answer the questions you have in front of you.

As you read, be sure to notice the subheadings. Most students have a habit of skipping subheadings. They finish a section, see a subheading, and skip right over it. *Subheadings are important!* If you're reading along and you realize that you skipped the subheading, go back and read it. In fact, read it *twice*.

When you're finished reading, you should have the answers to your questions. This sheet with questions and answers is one of the main reasons students like using the SQ3R. Before using the SQ3R, they never knew whether or not they'd read the chapter well enough. With the SQ3R, you have a specific *product* that you can hold in your hand when you're done. And you can use these questions and answers to study for your next test.

The last two "R's" of the SQ3R method stand for **recite** and **review**. Recite means to test yourself every so often while you read to make sure you understand what you're reading. You should say what you've just read out loud, putting the concepts into your own words. Say things like: "O.K., what the author just said was *(fill-in-the-blank)*. You don't need to stop after every paragraph, but also don't wait until you've finished the whole chapter. Stopping to quiz yourself after each major chapter section is usually about right.

Another way to recite material is to tell someone else what you've learned. Tell your roommate. Or your friends at dinner. If worst comes to worst, call home. Every time you *use* the material, you increase your chances of remembering it.

In reviewing, remember that the best time is immediately after you've learned something. That's when your comprehension is at its peak. Review the material again the next day, a week later, and at least once a week after that until the test.

This method of reading will prepare you for your tests. Study the sheet with your questions and answers on it. Many of the questions you made up should be on the test. If they aren't, keep trying. Learning to predict test questions is a skill, and like any skill, will improve with practice. You may want to read the advance organizers and structured overviews of the chapters again before the test. And if your professor tests on vocabulary—as most psychology, economics, and sociology professors do—be sure you know the meanings of all of the italicized words in the chapters.

A few final notes. First, the SQ3R is a reading method designed to help you read for information. It's *not* a method to use for recreational reading. When you're reading a murder mystery, you certainly don't want to skip to the end of the book and read the ending first. Second, you can't say that you've completed an assignment if you've read something and don't understand it. If you're not understanding what you're reading, stop and try to figure it out or ask someone to explain it to you before you proceed. And third, don't be afraid to modify this method. You'll probably want to make changes in it, depending on the textbook you're using and the type of material you're reading.

SURVEYING A TEXTBOOK AND ONE OF ITS CHAPTERS

Directions: Use a textbook from one of your other courses to complete this assignment. A book from the humanities would probably be preferable to a scientific text. Choose a book that you have a reading assignment in in the next few weeks. If your book does not lend itself to the SQ3R method and you're having a hard time answering the questions, use a different book. Don't copy your answers directly from the book—put them in your own words.

1. Title of text: _____
2. Author's name: _____
3. Institution author is affiliated with: _____
4. Copyright date: _____
5. Date book was first published: _____
6. Name of publishing company: _____
7. Is the book composed of chapters or units? _____
8. How many? _____
9. In looking at the Table of Contents, which chapter or unit do you know the most about? _____

   _____
10. If the book has a preface (or foreword or introduction), read it. Then answer the following questions:
    a) Who wrote the preface? _____
    b) What was the author's purpose for writing the book? _____

       _____

       _____
    c) Who is the intended audience of the book? _____

       _____
    d) Are there any suggestions given for reading the book? If so, what are they? _____

       _____

       _____
    e) Find something in the preface that catches your attention. Describe. _____

       _____

       _____

       _____
11. Does the book have a glossary? Describe. _____

    _____
12. Does the book have an index? Describe. _____

    _____
13. Does the book have an appendix? If so, what material does it contain? _____

    _____
14. Survey a chapter that you need to read in the next few weeks. What is the title? _____

    _____

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15. Write some things that you already know about the title: _____

16. Put the advance organizer in your own words. (Use the summary if there is no advance organizer.)

17. Is there a structured overview? Describe. _____

18. Are there behavioral objectives? Describe. _____

19. Are there italicized words in the chapter? Describe. _____

20. Are there headings and subheadings in the chapter? Will they be useful to make study questions? Why or why not?

21. Are there illustrations, pictures? Describe. _____

22. Are there study questions? Describe. _____

23. Using the headings, subheadings, and graphics, write ten questions that you would want to find the answers to when you read:

SURVEYING THE ARTICLE "WHAT STRESS CAN DO TO YOU"

Directions: Use the following questions as a guide to survey the article "What Stress Can Do To You."

1. In what magazine was this article first printed? _____
2. Who were the authors? _____
3. When was it printed? _____
4. Read the title. List five things you think will be in the article as a result of reading the title.
   a) _____
   b) _____
   c) _____
   d) _____
   e) _____
5. If you had control over this article, what one piece of information would you want in it to help *you*?
   _____
   _____
6. Read the advance organizer. What are the three things people have always thought caused heart attacks?
   a) _____
   b) _____
   c) _____
7. Write the advance organizer in your own words. _____
   _____
   _____
8. Read the first paragraph of the article.
   a) What population is the article talking about? _____
   b) Define the term "stress." _____
   _____
9. Skim through the article and read all of the headings and subheadings. Would they make good study questions? Why or why not?
   _____
   _____
10. Skim through the article and read the italicized words. Would these words most likely appear on a test on this article? Why or why not?
    _____
    _____
11. Read and study graph A. Underline the important words in the caption.
12. Read and study graph B. Underline the important words in the caption.
13. Read the last two paragraphs of the article. Would you say they were a summary of the article? Why or why not?
    _____

14. This article is about Type A people and Type B people. Skim through the sections entitled "The Coronary Type," "A Rather Grim Chuckle," and "An Unrecognized Sickness" (pages 83-84) and fill in the major characteristics of the two types of people in the columns below.

TYPE A	TYPE B

15. Are you a Type A or a Type B? Why? _____

_____

_____

16. The following five terms are some of the more important terms in the article. Using context clues, and a dictionary if necessary, define them.

a) psychosomatic _____

b) ubiquitous _____

c) General Adaptation Syndrome _____

_____

d) antistress _____

e) hypochondriacal _____

17. In your own words, what was the main point of the article?

_____

_____

_____

_____

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WHAT STRESS CAN DO TO YOU

There's impressive evidence that the chronic ailments afflicting middle-aged Americans have less to do with fatty diet, cigarette smoking, and lack of exercise than with workaday anger and tension.

Walter McQuade
Research associate: Varian Ayers Knisely

It has long been a matter of common intuition that bottled-up anger can crack the bottle, prolonged strain can make people sick. This old folklore now has considerable scientific support. Working independently, several groups of medical researchers—both physicians and psychologists—have collected impressive evidence that emotional factors are primarily responsible for many of the chronic diseases that have been hitting American males hard in middle age, notably the big one, heart disease. Challenging medical dogma, these doctors deny that fatty diet, cigarette smoking, and lack of proper exercise pose the main perils to men in their working prime. Much more important, they say, is stress. Stress might be defined as the body's involuntary reactions to the demanding life that we Americans choose—or that chooses us.

These reactions are rooted deep in the prehistory of the human species. Early man survived in a brutal world because, along with an elaborate brain, he had the mechanisms of instantaneous, unthinking physical response when in danger. Picture a primitive man, many thousands of years ago, lying in the sun in front of his cave after the hunt, digesting. Suddenly he felt the cool shadow of a predatory carnivore, stalking. Without thinking, he reacted with a mighty surge of bodily resources. Into his blood flashed adrenal secretions that mustered strength in the form of both sugar and stored fats to his muscles and brain, instantly mobilizing full energy, and stimulating pulse, respiration, and blood pressure. His digestive processes turned off at once so that no energy was diverted from meeting the threat. His coagulation chemistry immediately prepared to resist wounds with quick clotting. Red cells poured from the spleen into the stepped-up blood circulation to help the respiratory system take in oxygen and cast off carbon dioxide as this ancestral man clubbed at the prowling beast, or scuttled safely back into his cave.

A cool memo from a v.p.

Today, say stress researchers, a man in a business suit still reacts, within his skin, in much the same chemical way. He does so although today's threat is more likely to be in the abstract, for example, a cool memo from a vice president of the corporation: "The chairman wants a study of the savings possible in merging your division with warehousing and relocating to South Carolina."

Flash go the hormones into the blood; up goes the pulse beat—but the manager who receives the memo can neither fight physically nor flee. Instead his first tendency is to stall, which only induces guilt, before he plunges into a battle fought with no tangible weapons heavier than paper clips. Under his forced calm builds repressed rage without any adequate target—except himself.

If he is the kind of hard-driving, competitive perfectionist whom many corporations prize, and if this kind of stress pattern is chronic, the stress experts will tell you that he is a prime candidate for an early coronary (an even likelier candidate than American men in general, whose chances of having a heart attack before age sixty are one in five). If not a coronary, it may be migraine, ulcers, asthma, ulcerative colitis, or even the kind of scalp itch James V. Forrestal developed as he began to give way to interior pressure. Or perhaps a collision on the road—stressed people are more accident-prone.

Chronic strain is so common that there are conventional ways of fighting back. Millions of pills repose in desk drawers, ready to foster calmness or energy. The trouble with them, say the doctors, is that after the calm or the uplift there usually comes a period of depression. Martinis may be better, although they too involve dangers. Some people under stress try to vent their repressed anger in polite violence at a driving range or bowling alley, or by chopping wood or throwing themselves at ocean waves breaking on the beach. But the violent exercisers had better be careful of contracting another common stress symptom, low back pain.

Marriages have to accept a lot of stress, both in hurtful words and yet another symptom, temporary impotence. If a man coming under job stress has been on an anticholesterol diet he had better stay on it, but the competitive strain on him will be upping his serum cholesterol, whatever he eats. In broad terms, man the victorious predator now preys internally on himself.

Lost consolations

Why has stress become such a problem in today's world of mass-manufactured comforts and conveniences? For most people in industrial nations, after all, life is in many respects a lot easier than it was for their ancestors. Perhaps the answer, or at least part of the answer, is that modern societies have to a great extent lost the supports that helped people in earlier times endure toil, hardship, and suffering—religious faith, sustaining frameworks of tradition and custom, a sense of place in the social order, a sense of worth derived from the exercise of craftsmanship, and awareness that toil, hardship, and suffering were likewise endured by the other members of the same community and the same social class. In the twentieth century the great increase in physical abundance has been accompanied by swift and deep erosion of these intangible sources of consolation and support.

Particularly destructive of the individual's sense of security have been the side effects of one of the industrial world's most precious products—social mobility. This bright trophy of our times has its deeply etched dark side. Social mobility has weakened the sense of belonging to a class, the sense of having a

place in the social order. More important, social mobility implies that success depends on merit alone, and to the extent that a society believes in such correlation, individual breadwinners are thrust into an endless competition in which losing or lagging can be interpreted as a sign of personal inadequacy.

Stress, then, is rampant not in rural or in underdeveloped countries, but in the great urban centers of the industrialized world. And it is not surprising that external threats to the community tend to decrease individual stress rather than increasing it. In England, for example, two prime indexes of stress, alcoholism and suicide, declined markedly during World War II.

As a recognized factor in disease, stress is very much a product of the twentieth century. When it was still but vaguely recognized forty years ago, the medical historian Henry E. Sigerist foresaw its importance. Every epoch, he observed, has its characteristic ailments. "It seems as though the powers that ordain the style for and stamp their impress upon a certain epoch affect even disease." He pointed out that the Middle Ages were dominated by ills of the common people such as the great plague, leprosy, and the epidemic neuroses, which appeared in the sixth to the fourteenth centuries. The disease that characterized the Renaissance was syphilis, an infection incurred not passively but as a result of an individual act. "In the discordant Baroque era, the foreground is occupied by diseases which might be called deficiency diseases like camp-fever, scurvy and ergotism on the one hand and on the other by diseases which might be called luxury diseases like gout, dropsy and hypochondriasis." Tuberculosis and similar ailments characterized the romantic period, "while the 19th century, with its tremendously increased industrialization, the development of great cities and the accelerated life tempo, brought about industrial diseases, general nervousness and neuroses of many kinds."

The seeds and the terrain

Medicine, too, has its epochs. Until late in the nineteenth century, the leading doctors were generalists, devoutly concerned with the "whole man." According to Sir William Osler, the famous Canadian clinician, "It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has." Claude Bernard, the most renowned of nineteenth-century French physicians, maintained that diseases were resisted by a person's central equilibrium, his *milieu interieur*; the germs were all about, like seeds blown by the wind, but did not take root in his "terrain" unless he had already been weakened.

After the middle of the nineteenth century, however, the medical world's focus of attention began to shift from the patient to the disease. Pasteur and other great scientists achieved glorious successes in identifying harmful microorganisms, and medicine knocked off one disease after another. Many doctors came to consider the question of the patient's receptivity to illness almost quaint, except in such obvious conditions of weakness as severe malnutrition. By 1943, Dr. Flanders Dunbar of Columbia University-Presbyterian Hospital in New York was able to point out that of the most common dangerous illnesses in America fifty years earlier—infections such as scarlet fever and typhoid—not one was still on the list of the ten most common causes of mortality and morbidity.

Yet the hospitals were still full. It almost seemed that man was inventing new chronic diseases to replace the old infections. The realization sent some medical practitioners and researchers back to the whole-man concept. In the vanguard was Dr. Harold G. Wolff of New York Hospital-Cornell Medical Center, who wrote that in infectious disease "the presence of the microorganism, however indispensable, is not sufficient as the cause of illness . . . In a sense, disease is a reaction to rather than an effect of noxious forces."

Through painstaking observation and accumulation of case histories, Dunbar, Wolff, and other investigators were able to demonstrate that many persons who had become vulnerable to certain organisms shared not only physical but also psychological characteristics. This was especially true in chronic conditions such as eczema, gastric ulcer, diabetes, arthritis, migraine, asthma, and ulcerative colitis. The researchers decided that the Victorian novelists had been excellent intuitive diagnosticians in discerning that people who had been through periods of severe emotional upset, such as a broken love affair, or depression caused by the death of a beloved mate, were especially vulnerable to pulmonary tuberculosis. More recently a high incidence of cancer has been found in the same circumstances, but the evidence is less convincing, so far, than with TB. Some studies indicate also that vulnerabilities shift as social patterns change. For example, peptic ulcers used to be primarily a woman's ailment. One retrospective medical study reveals that from 1850 to 1900 close to seven out of every ten patients with perforated peptic ulcers were women. But from 1920 to 1940 nine out of every ten were men. Since mid-century the incidence of ulcers in women has been on the rise again.

A growing accumulation of evidence indicates that a great many bodily ills that afflict human beings are partly psychosomatic in nature. For example, a period of mental depression affects a patient's nasal mucous membranes, making him somewhat more vulnerable to virus infections. As one doctor observed, "You don't have to be depressed to get a cold, but it helps."

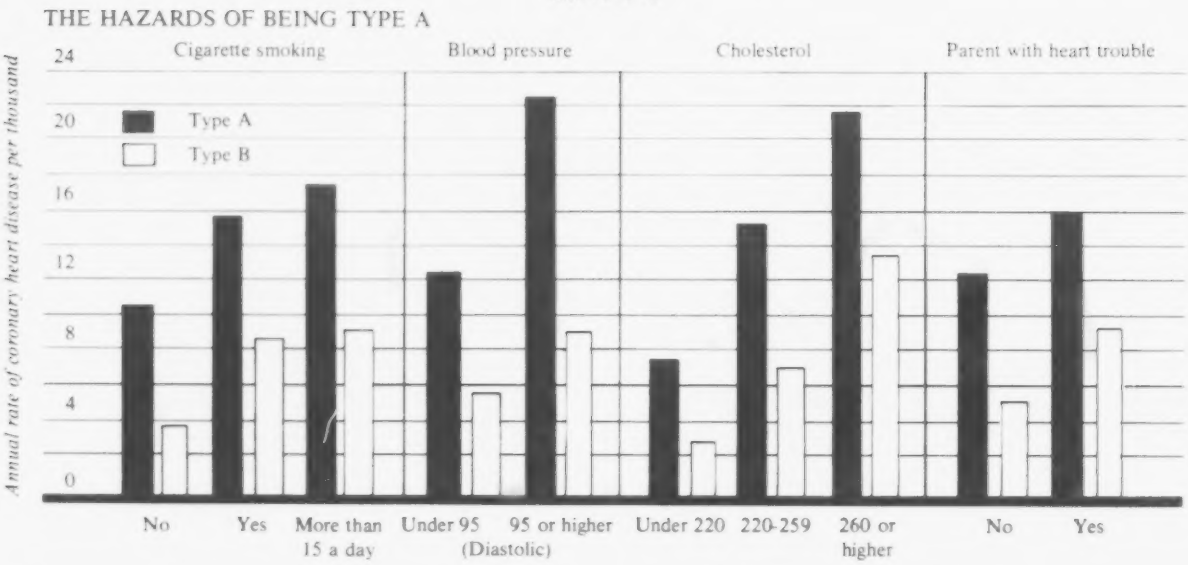
Some very different chronic illnesses have been interlinked. The *Journal of Chronic Diseases* several years ago published a paper entitled "Why Do Wives with Rheumatoid Arthritis Have Husbands with Peptic Ulcers?" The answer was a summary of research revealing the existence of a particular type of hostility in such marriages. The wife, conditioned by early childhood, had a yearning for high public esteem, an ambition that her husband could not, or would not, enable her to gratify. Frequently, the husband was of the common ulcer type, in strong need of emotional support, which the wife, because of her resentment, did not provide.

Aggression is likely to be clearer in close business relationships than in marriages, but still not simple. Dr. Sidney Cobb, one of the authors of the paper on arthritic wives and ulcerous husbands, recently noted in conversation that many a quietly aggressive executive unconsciously picks an ulcer-prone assistant, sensing that the assistant can be prodded into anxious action just by the boss's failure to say good morning.

Discovering the ubiquitous

A pioneer investigator into the implications of stress was Dr. Hans Selye, a Canadian who has become the world's acknowledged authority on his subject. Selye, now sixty-four, defines stress as the nonspecific response of the body to any demand made on it. He maintains that stress went unstudied in detail for centuries simply because it had always been such so common. "Stress is ubiquitous, and it is hard to *discover* something ubiquitous."

GRAPH A



Your temperament is more important in making you a candidate for a coronary than the number of cigarettes you smoke, your blood pressure, the level of cholesterol in your blood, or even your heredity. So say Drs. Friedman and Rosenman.

They point to an eight-and-a-half-year study of more than 3,000 American males. First the men were interviewed and classified into the competitive Type A and the more relaxed Type B. Then detailed medical records were maintained. The A's had more coronary heart disease—even, in many cases, when the conventional risk factors predicted more for B's.

Selye recalls that an intimation of his future specialty came to him in his youth. "I was a second-year medical student in Prague in 1926 when my professor brought in five patients for the students to diagnose—one with cancer, one with gastric ulcer, etc. It struck me that the professor never spoke about what was common to them all, only what were the specifics of the diagnosis. All these patients had lost weight, lost energy, and lost their appetites."

Ten years later, as an assistant professor at McGill in Montreal, Selye observed that various kinds of insults to the bodies and nervous systems of laboratory animals had lasting effects in making them vulnerable to subsequent stress. "I was trying to isolate a hormone in the laboratory. I was working with extracts of cow ovaries and injecting them into rats. All of them, when later subjected to stress, had the same reaction—adrenal overaction, duodenal and gastric ulcers, and shrinking thymus, spleen, and lymph nodes. The worse the stress, the stronger the reaction. Then I tried injecting other materials, even simple dirt. I even tried electric shock, and got the same results." When he tried inducing fear and rage, results were again similar.

When all the rats died

One of Selye's most significant breakthroughs came when he realized he could take two similar groups of rats and predispose one group to heart disease, uncommon in animals, by injecting an excess of sodium and certain types of hormones. Then he would expose both groups of rats to stress. None of the control group suffered. *All* the rats in the predisposed group died of heart disease.

In time, Selye came to the conviction that the endocrine glands, particularly the adrenals, were the body's prime reactors to stress. "They are the only organs which do not shrink under stress; they thrive and enlarge. If you remove them, and subject an animal to stress, it can't live. But if you then inject extract of cattle adrenals, stress resistance will vary in direct proportion to the amount of the injection, and can even be put back to normal."

Selye explains that when the brain signals the attack of a stressor—which could be either a predatory beast or a threatening memorandum—the adrenal and pituitary glands produce the hormones ACTH, cortisone, and cortisol, which stimulate protective bodily reactions. If the stress is a fresh wound, the blood rushes irritants to seal it off; if the stress is a broken bone, swelling occurs around the break. The pro-inflammatory hormones are balanced by anti-inflammatory hormones, which prevent the body from reacting so strongly that the reaction causes more harm than the invasion.

Energy that can't be replenished

So the initial reaction to any kind of stress is alarm. It is followed by an instantaneous rallying of the body's defenses. The fight is on—even if the body, in effect, is just fighting the mind. If the threat recedes or is overcome, stability returns. But if the attack is prolonged, deterioration sets in, as the defense system gradually wears down. Selye calls this process the General Adaptation Syndrome, and it is recognized in the field as a brilliant concept.

Stress is not only a killer, Selye teaches, but also a drastic aging force. Different men have different hereditary capacities to withstand stress, but once each man's "adaptation energy" has been expended, there is no way yet known to replenish it. Selye believes that some time in the future it may be possible to produce from the tissues of young animals a substance that could replenish human stress energy. "But that is for the Jules Verne future—soft research, like soft news, that *may* happen."

Selye likens each man's supply of life energy to deep deposits of oil; once the main has summoned it up and burned it in the

form of adaptation energy, it is gone—and so, soon, is he. If he picks a high-stress career, he spends his portion fast and ages fast. "There are two ages," says Selye, "one which is chronological, an absolute, and the other which is biologic and is your effective age. It is astonishing how the two can differ."

At the University of Montreal, Selye conducts research on how to keep the machine, man, oiled in his daily struggle against small and large stressors. His latest news is the work his laboratory has done with certain hormones called catatoxic steroids. "In their protective action, they are almost like a panacea," he claims. "These antistress hormones produce enzymes in the body, most of which destroy toxic substances, or neutralize them. Detoxication is the most effective way to fight disease or stress. Pollutants, nicotine, and carcinogens—all can be detoxified in the body by catatoxic steroids. And, unlike the corticoids, the best of this group, PCN, has no toxicity itself, no hormonal effet."

As an example of the promise of catatoxic steroids, Selye points to cardiac patients, for whom doctors frequently prescribe digitalis. Selye says a doctor is forced to experiment, sometimes almost to overdo the dose, in order to ascertain how much a patient needs. Yet if the patient is given too much digitalis, he will suffer a buildup of toxic effects. The correct catatoxin, says Selye, can neutralize that danger. Many an industrial worker exposed to dangerous fumes, to mercury, or to other poisonous substances will be protected with catatoxic steroids, he predicts, when they are perfected and available. The potential market is so broad that seventeen different chemical manufacturers in the U.S. and abroad are participating in Selye's research.

A queerly contemporary quality

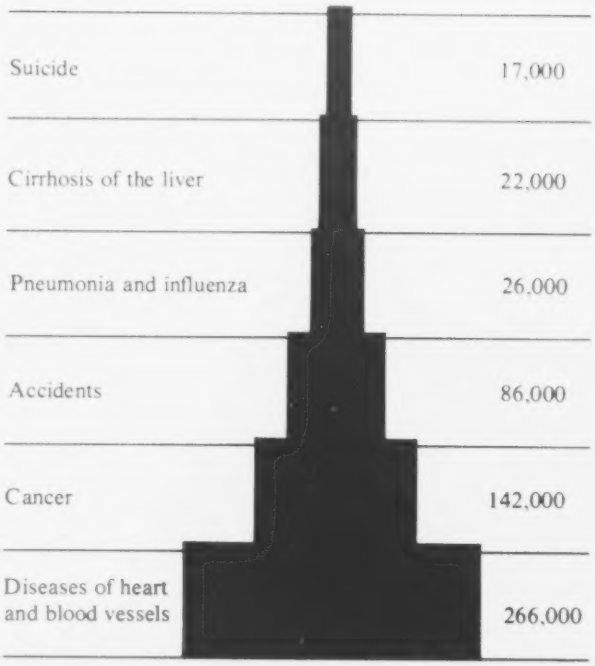
Stress research in the U.S. centers on heart disease, and for good reason. Cardiovascular ailments such as coronary heart disease now take an appalling annual toll in lives of American men in vigorous middle age. Of the 700,000 people who died from coronary heart disease in the U.S. last year, almost 200,000 were under sixty-five.

Yet until this century heart disease was virtually unknown anywhere in the world, and as late as the 1920's it was still fairly rare in the U.S. Dr. Paul Dudley White, the eminent cardiologist, recalls that in the first two years after he set up his practice in 1912 he saw only three or four coronary patients. The queerly contemporary quality of heart disease cannot be attributed to the ignorance of earlier doctors. As far back as the time of Hippocrates, most afflictions were described well enough to be recognizable today from surviving records. A convincing description of heart disease, however, was not entered in medical records until late in the eighteenth century.

Some of the most important research on the effects of occupational stress in the U.S. has been carried out by the University of Michigan's Institute for Social Research, and the experts there are not impressed with the conventional medical wisdom regarding coronaries. Professor John R. P. French Jr., an austere and plainspoken psychologist at the institute, says that the known risk factors do not come close to accounting for the incidence of the disease. He maintains that "if you could perfectly control cholesterol, blood pressure, smoking, glucose level, serum uric acid, and so on, you would have controlled only about one-fourth of the coronary heart disease." There is little solid evidence, he adds, "to show that programs of exercise substantially reduce the incidence of coronary heart disease or substantially reduce some of the risk factors."

GRAPH B

DEATH UNDER SIXTY-FIVE



Cardiovascular disease is leveling off in the U.S., but it is still the principal cause of death—not only among the elderly, but also among people under sixty-five. Middle-aged men are much more vulnerable than middle-aged women. Of the 266,000 young and middle-aged Americans who died from diseases of the heart and blood vessels in 1968 (the most recent year for which accurate figures are available), 183,000—nearly 70 percent—were men.

To a great extent, argues French, the problem is the job. "The stresses of today's organizations can pose serious threats to the physical and psychological well-being of organization members. When a man dies or becomes disabled by a heart attack, the organization may be as much to blame as is the man and his family." A nationwide survey directed by French's colleague Robert L. Kahn found evidence of widespread occupational stress in the U.S. The results indicated that 35 percent of the employees had complaints about job ambiguity, meaning a lack of clarity about the scope and responsibilities of the work they were supposed to be doing. Nearly half—48 percent—often found themselves trapped in situations of conflict on the job, caught in the middle between people who wanted different things from them. Some 45 percent of the sample complained of overload, either more work than they would possibly finish during an ordinary working day, or more than they could do well enough to preserve their "self-esteem."

Other occupational stresses found by the survey included insecurity associated with having to venture outside normal job boundaries; difficult bosses or subordinates; worry over carrying responsibility for other people; the lack of a feeling of participation in decisions governing their jobs—a malaise, adds Dr. French, that distinctly lowers productivity.

Management jobs carry higher risks than most. In a detailed study done for NASA at the Goddard Space Flight Center, the

investigators from Ann Arbor found that administrators were much more subject to stress than engineers or scientists. Responsibility for people, French explains, always causes more stress than responsibilities for things—equipment, budgets, etc. The rise in serum cholesterol, blood sugar, and blood pressure among ground managers is much greater during manned space flights than during flights of unmanned satellites. Whatever their assignment, the administrators at Goddard, as a group, had higher pulse rates and blood pressure, and smoked more, than the engineers or scientists. Medical records revealed that administrators also had suffered almost three times as many heart attacks as either the scientists or the engineers.

The coronary type

In any occupation, though, people vary a great deal in the amounts of stress they can handle. Some researchers at the institute hope psychologists will be able to work out methods of screening employees for their tolerance of stress. There may even prove to be physiological methods of selection. Dr. French and his associates have discovered a direct correlation between "achievement orientation" and high readings of uric acid in the blood—regarded in the past principally as a sign of susceptibility to gout. "High serum uric acid persons," French reported, "tend not to see the external environment as a source of pressure. [They] tend to master their external environment, while high cholesterol persons are typified by the perception that the external environment is mastering them."

It is not a new observation that some people are more subject to stress than others. Sir William Osler lived too early to see many coronary cases, but he left a shrewd description of the angina type. "It is not the delicate, neurotic person who is prone to angina," he commented, "but the robust, the vigorous in mind and body, the keen and ambitious man, the indicator of whose engine is always at 'full speed ahead' . . . the well set man of from forty-five to fifty-five years of age, with military bearing, iron gray hair, and florid complexion."

This Osler quotation is a favorite of two California cardiologists, Meyer Friedman and Ray H. Rosenman, who are among the country's leading students of stress. In the past seventeen years they and their staff at the Harold Brunn Institute of Mount Zion Hospital in San Francisco have spent thousands of hours and hundreds of thousands of research dollars building up an impressive case that behavior patterns and stress are principal culprits in the high incidence of coronary heart attacks among middle-aged Americans—and that personality differences are of vital importance.

Until 1955, Friedman and Rosenman were conventional cardiologists, doing research in the standard heart risk factors: serum cholesterol, cigarette smoking, blood pressure, diet, and obesity. They also gave half their time to practice, however, and, says Friedman, "We finally began to look at the individuals. They were signaling us. More than 90 percent showed signs of struggle. An upholsterer came in to redo our waiting room, and pointed out that the only place the chairs were worn was at the front edge."

In studying reactions to stress, Friedman and Rosenman gradually came to the conviction that people can be divided into two major types, which they designate A and B. Type A, the coronary-prone type, is characterized by intense drive, aggressiveness, ambition, competitiveness, pressure for getting things done, and the habit of pitting himself against the clock. He also exhibits visible restlessness. Type B may be equally serious, but is more easygoing in manner, seldom becomes impatient, and takes more time to enjoy leisure. He does not feel driven by the clock. He is not preoccupied with social achievement, is less competitive, and even speaks in a more modulated style. Most people are mixtures of Type A and Type B characteristics, but a trained interviewer can spot one pattern or the other as predominant.

A rather grim chuckle

The extreme Type A is a tremendously hard worker, a perfectionist, filled with brisk self-confidence, decisiveness, resolution. He never evades. He is the man who, while waiting in the office of his cardiologist or dentist, is on the telephone making business calls. His wife is certain he drives himself too hard, and she may be a little in awe of him. The world is a deadly serious game, and he is out to amass points enough to win.

He speaks in staccato, and has a tendency to end his sentences in a rush. He frequently sighs faintly between words, but never in anxiety, because that state is strange to him. He is seldom out sick. He rarely goes to doctors, almost never to psychiatrists. He is unlikely to get an ulcer. He is rarely interested in money except as a token of the game, but the higher he climbs, the more he considers himself underpaid.

On the debit side, he is often a little hard to get along with. His chuckle is rather grim. He does not drive people who work under him as hard as he drives himself, but he has little time to waste with them. He wants their respect, not their affection. Yet in some ways he is more sensitive than the milder Type B. He hates to fire anyone and will go to great lengths to avoid it. Sometimes the only way he can resolve such a situation is by mounting a crisis. If he himself has ever been fired, it was probably after a personality clash.

Type A, surprisingly, probably goes to bed earlier most nights than Type B, who will get interested in something irrelevant to his career and sit up late, or simply socialize. Type A is precisely on time for appointments and expects the same from other people. He smokes cigarettes, never a pipe. Headwaiters learn not to keep him waiting for a table reservation; if they do, they lose him. They like him because he doesn't linger over his meals, and doesn't complain about quality. He will usually salt the meal before he tastes it. He's never sent a bottle of wine back in his life. Driving a car, Type A is not reckless, but does reveal anger when a slower driver ahead delays him.

Type A's are not much for exercise; they claim they have too little time for it. When they do play golf, it is fast through. They never return late from vacation. Their desk tops are clean when they leave the office at the end of each day.

An unrecognized sickness

But in the competition for the top jobs in their companies, says Dr. Friedman, A's often lose out to B's. They lose because they are too competitive. They are so obsessed with the office that they have attention for nothing else, including their families. They make decisions too fast—in minutes, rather than days—and so may make serious business mistakes. They are intoxicated by numerical competition; how many units were sold in Phoenix, how many miles were traveled last month. Also, says Friedman, Type A's frequently have about them an "existential" miasma of hostility, which makes others nervous.

Type B's differ little in background or ability from A's, and may be quietly urgent, but they are more reasonable men. Unlike Type A, Type B is hard to needle into anger. Friedman says,

"A's have no respect for B's, but the smart B uses an A. The great salesmen are A's. The corporation presidents are usually B's."

What is most tragic of all in this picture of hopeful, driving, distorting energy is that the Type A's are from two to three times more likely than the Type B's to get coronary heart disease in middle age. In all of Sinclair Lewis' pitiless characterizations of the go-getting American businessman of another era, there is nothing so devastating as these doctors' cool, clinical statistics. Says Rosenman about the Type A condition: "It is a sickness, although it is not yet recognized as such."

The test program that Friedman and Rosenman offer as their strongest body of evidence was undertaken in 1960 with substantial backing from the National Institutes of Health. A total of 3,500 male subjects aged thirty-nine to fifty-nine, with no known history of heart disease, were interviewed and classified as Type A or Type B. Then came complete physical examinations, which are still being performed on a regular basis as the program continues to accumulate data. So far, 257 of the test group—who are roughly half A's and half B's—have developed coronary heart disease. Seventy percent of the victims have been Type A's.

Even more emphatic is the picture that emerged when A's and B's were evaluated with respect to the generally accepted risk factors for heart trouble. As a group the A's had higher cholesterol levels than the B's. But it was found that even A's whom the conventional wisdom would have rated safer in blood pressure, parental history, or any combination of the usual risk factors were more likely to develop coronary heart disease. Conversely, B's could show adverse ratings in blood pressure and other factors and still be relatively safe. Dr. Rosenman reported that any B whose level of cholesterol and other fatty acids was within normal limits "had complete immunity to coronary heart disease, irrespective of his high-fat, cholesterol diet, family history, or his habits of smoking or his lack of exercising."

What creates a Type B or Type A? These cardiologists do not profess to know the complete answer yet. But to them it is obvious that both heredity and environment are involved. A's are naturally attracted toward careers of aggressiveness and deadline pressure. American life today, Friedman and Rosenman observe, offers plenty of these. What Type A's need but cannot easily achieve is restraint, says Dr. Friedman, who himself suffered a heart attack in 1967.

The medical debate that the Brunn Institute and the other stress researchers have joined is a bitter one, with deeply entrenched positions. The most emphatic opponents of the stress theory are those nutrition experts who, over the past twenty years, have virtually convinced the nation that a diet high in saturated fat and cholesterol is responsible for the epidemic of heart trouble. One pointed criticism that opponents make against the Friedman-Rosenman studies is that their method of classifying individuals into Type A or Type B is subjective, relying heavily on signs of tension as observed by the interviewer. The two cardiologists do not deny this, but point out that a good deal of all medical analysis is subjective. Their independent appraisals of Type A's or Type B's agree, they say, at least as much as doctors' readings of identical x-ray films. Says Rosenman: "Most epidemiologists are incapable of thinking of anything that cannot be quantified. There are no positive links between diet or exercise and heart disease, either. A migraine is subjective, too."

Last words of a great man

Studies of stress and its effects are now under way around the world. In 1950 Hans Selye's pioneering work was the sole technical treatise published on stress; last year there were close to 6,000 separate reports on stress research. At the Brunn Institute, Dr. Rosenman says, "we can't keep up with the requests from all over the world to train people here." During recent years, courts of law in the U.S., in a highly significant switch, have begun to favor plaintiffs seeking compensation for damage related to heart attack caused by alleged stress on the job.

Now that even cardiologists are beginning to believe heart disease can be traced to unrelenting competitiveness and baffled fury, will a wave of concern over stress sweep over this hypochondriacal country, to match the widespread interest in jogging and polyunsaturated oils? Quite likely. There is nothing more fascinating to the layman than folklore finally validated by reputable scientists. A murmur of assent rises faintly from the past. When the great Pasteur lay in terminal illness, in 1895, he reflected once again on his long scientific disagreement with Claude Bernard. Pasteur's dying words were: "Bernard was right. The microbe is nothing, the terrain is everything."

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07

HOW TO UNDERLINE YOUR TEXTBOOKS

It's doubtful you were ever taught a system for underlining. Underlining is another one of those skills that's largely self-taught. Almost all students underline, but, afraid of selecting one idea over another or of leaving something out, they generally end up underlining too much. As a result, they have to reread practically the entire chapter when they go to study for a test.

It's difficult to describe precisely what—and how much—to underline. Underlining depends upon how familiar you are with the material, how comfortable you are with the particular textbook you're using, and how much information there is per page. Your best bet is to underline main ideas. You can locate main ideas by understanding the way paragraphs are structured.

A paragraph is made up of three things: a main idea, supporting details, and filler words that connect the main idea and the supporting details. The filler words are called transitional words or signal words. Supporting details are the things that help prove the main ideas, like examples, instances, analogies, and facts.

The main idea is written in a topic sentence, which is usually the first sentence in the paragraph. In fact, 80 percent of the time, the topic sentence in a paragraph is the first sentence. If not the first, the topic sentence is usually very near the beginning of the paragraph. Authors commonly restate the topic sentence in different words as the last sentence in the paragraph. If you don't train yourself to look for this, you may think that the paragraph has two main ideas instead of just one.

Every time you read a paragraph, you should stop and ask yourself what the main idea was. Likewise, every time you write a paragraph, you should have just one main idea in mind. Put the main idea into your own words. Locating main ideas is your first job as a reader. These are the ideas you'll be responsible for on a test.

To help you study for a test, it's a good idea to either underline main ideas or to write yourself notes in the margins of your books. You may prefer extracting the main ideas and taking notes in a separate notebook. If you need a lot of practice with the material, you may want to do all three of these things.

Here are some things to keep in mind when underlining:

First, don't underline until you've surveyed the chapter. And then don't underline until you've read through the paragraph at least once. It's best to read several paragraphs at a time, and then go back to underline. This will give you a much better perspective of what the main ideas are.

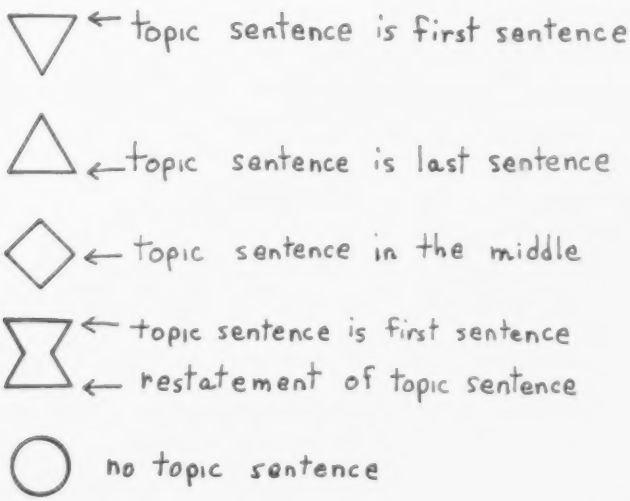
Second, be selective about what you underline. Don't underline two sentences that say the same thing.

Third, you need only underline key words—don't underline every word in the sentence.

Fourth, your system of underlining should allow you to distinguish between main ideas and supporting details. For example, you could bracket [ ] main ideas and <u>underline</u> supporting details. Or, you could use two different colors of ink. In any event, differentiating in this manner will help you organize the information as you handle it, and the more structure you can impose on the material, the better you'll be able to remember it.

And fifth, write in the margins of your books. Extract key words, write a summary, or draw a picture. You can also number items if there's a list of things to remember, or use arrows to connect ideas in different parts of the page.

The five most common paragraph structures:


topic sentence is first sentence
topic sentence is last sentence
topic sentence in the middle
topic sentence is first sentence
restatement of topic sentence
no topic sentence

SAMPLE PAGE OF UNDERLINING

WHAT STRESS CAN DO TO YOU

There's impressive evidence that the chronic ailments afflicting middle-aged Americans have less to do with fatty diet, cigarette smoking, and lack of exercise than with workaday anger and tension.

Walter McQuade
Research associate: Varian Ayers Knisely

It has long been a matter of common intuition that bottled-up anger can crack the bottle, prolonged strain can make people sick. This old folklore now has considerable scientific support. Working independently, several groups of medical researchers—both physicians and psychologists—have collected impressive evidence that emotional factors are primarily responsible for many of the chronic diseases that have been hitting American males hard in middle age, notably the big one, heart disease. Challenging medical dogma, these doctors deny that fatty diet, cigarette smoking, and lack of proper exercise pose the main perils to men in their working prime. Much more important, they say, is stress. Stress might be defined as the body's involuntary reactions to the demanding life that we Americans choose—or that chooses us.

These reactions are rooted deep in the prehistory of the human species. Early man survived in a brutal world because, along with an elaborate brain, he had the mechanisms of instantaneous, unthinking physical response when in danger. Picture a primitive man, many thousands of years ago, lying in the sun in front of his cave after the hunt, digesting. Suddenly he felt the cool shadow of a predatory carnivore, stalking. Without thinking, he reacted with a mighty surge of bodily resources. Into his blood flashed adrenal secretions that mustered strength in the form of both sugar and stored fats to his muscles and brain, instantly mobilizing full energy, and stimulating pulse, respiration, and blood pressure. His digestive processes turned off at once so that no energy was diverted from meeting the threat. His coagulation chemistry immediately prepared to resist wounds with quick clotting. Red cells poured from the spleen into the stepped-up blood circulation to help the respiratory system take in oxygen and cast off carbon dioxide as this ancestral man clubbed at the prowling beast, or scuttled safely back into his cave.

A cool memo from a v.p.

Today, say stress researchers, a man in a business suit still reacts, within his skin, in much the same chemical way. He does so although today's threat is more likely to be in the abstract, for example, a cool memo from a vice president of the corporation: "The chairman wants a study of the savings possible in merging your division with warehousing and relocating to South Carolina."

Flash go the hormones into the blood; up goes the pulse beat—but the manager who receives the memo can neither fight physically nor flee. Instead his first tendency is to stall, which only induces guilt, before he plunges into a battle fought with no tangible weapons heavier than paper clips. Under his forced calm builds repressed rage without any adequate target—except himself.

Fight or Flight

If he is the kind of hard-driving, competitive perfectionist whom many corporations prize, and if this kind of stress pattern is chronic, the stress experts will tell you that he is a prime candidate for an early coronary (an even likelier candidate than American men in general, whose chances of having a heart attack before age sixty are one in five). If not a coronary, it may be migraine, ulcers, asthma, ulcerative colitis, or even the kind of scalp itch James V. Forrestal developed as he began to give way to interior pressure. Or perhaps a collision on the road—stressed people are more accident-prone.

Chronic strain is so common that there are conventional ways of fighting back. Millions of pills repose in desk drawers, ready to foster calmness or energy. The trouble with them, say the doctors, is that after the calm or the uplift there usually comes a period of depression. Martinis may be better, although they too involve dangers. Some people under stress try to vent their repressed anger in polite violence at a driving range or bowling alley, or by chopping wood or throwing themselves at ocean waves breaking on the beach. But the violent exercisers had better be careful of contracting another common stress symptom, low back pain. (1) (2) (3)

Marriages have to accept a lot of stress, both in hurtful words and yet another symptom, temporary impotence. If a man coming under job stress has been on an anticholesterol diet he had better stay on it, but the competitive strain on him will be upping his serum cholesterol, whatever he eats. In broad terms, man the victorious predator now preys internally on himself.

Lost consolations

Why has stress become such a problem in today's world of mass-manufactured comforts and conveniences? For most people in industrial nations, after all, life is in many respects a lot easier than it was for their ancestors. Perhaps the answer, or at least part of the answer, is that modern societies have to a great extent lost the supports that helped people in earlier times endure toil, hardship, and suffering—religious faith, sustaining frameworks of tradition and custom, a sense of place in the social order, a sense of worth derived from the exercise of craftsmanship, and awareness that toil, hardship, and suffering were likewise endured by the other members of the same community and the same social class. In the twentieth century the great increase in physical abundance has been accompanied by swift and deep erosion of these intangible sources of consolation and support.

Particularly destructive of the individual's sense of security have been the side effects of one of the industrial world's most precious products—social mobility. This bright trophy of our times has its deeply etched dark side. Social mobility has weakened the sense of belonging to a class, the sense of having a

SIGNAL WORDS

Signal words are short, simple little words like *and, since,* and *but*. When they stand by themselves, they contain very little information. Their value lies in the way they're used by a writer in a particular context. Writers use signal words to tell their readers the relationship between two or more ideas. Lazy readers generally skip signal words; good readers use them to help understand the author's meaning.

Signal words get their name because they give readers signals about what's going to happen, much as signs along a highway inform drivers. Some signal words tell you that you can *speed up*—that the author is simply restating his point or giving you additional supplementary material. Some signal words tell you to *slow down*—that the author has something different to say and wants to make sure that you notice the difference. Other signal words tell you that the author is comparing or contrasting two ideas. A fourth group of signal words tells you that the author is presenting a cause-and-effect relationship between two ideas. And a fifth group of signal words serve to tell you that the author is going to summarize what he or she has been saying.

Most writers write for the purpose of presenting information. They know their readers wouldn't understand them if they just threw their ideas down on a sheet of paper, so they structure the information. For example, let's say that a writer is going to present some ideas. He could simply present the ideas, starting with the first one and ending with the last one. Or he could warn his readers ahead of time how many ideas he has ("I have four different ideas. . .") and he could label the ideas numbers one, two, three, and four. These labels help the reader identify the various pieces of information. When an author numbers his ideas, he's using an organizational pattern called **listing**. In a listing pattern, the order of ideas isn't important. Let's say there are three ways to memorize material:

1. mnemonics
2. visual imagery
3. the alphabet

If there's a test question that asks, "List three ways to memorize material," you know that you can put your answers down in any order.

Another way authors organize their material is by putting it in chronological order. When an author uses this pattern of organization, you know that you *must* learn the information in a specific order. For example, a writer may be presenting Piaget's four stages of growth. The first stage is sensory-motor, the second is pre-operational, the third is concrete operational, and the last is formal operational. A child progresses through these stages in that specific order—he can't jump from the first to the third stage. On a test, if you were asked to list Piaget's four stages of growth, you'd be expected to list them in their correct order. This pattern of organization is called **time-sequence**.

When an author has just two ideas to present, he may present them in a **comparison-contrast** pattern of organization. If the ideas are similar, he'll cite the things they have in common. The chief signal word here is *like*. (X is like Y.) An **analogy** is a device authors use to teach their readers new information. They compare the new idea (Y) to something their readers are already familiar with (X). For example, in discussing an ancient tribe of Australian aborigines, the author of a sociology textbook might compare the stone axe in that society to a set of car keys in our society. In the aborigine society, men owned the axes and if a woman wanted to use one, she had to ask her husband's permission. Because she was dependent on his permission, she was in a position where she needed to stay on his good side.

In our society, teenagers often ask their dads if they can borrow the family car. If the teenager is not in good standing with his father at the time of the request, the chances are good that he isn't going to be given the keys.

Sometimes an author will point out the differences between two ideas. Key signal words indicating a **contrasting organizational style** are *except, but, on the other hand,* and *on the contrary*. For example, even if you don't know what the word *taciturn* means, you could probably guess that it means *quiet* from the following context:

Bill was talkative, *but* John remained taciturn.

The word *but* tells you that the word taciturn is the opposite of talkative.

Sometimes when an author is discussing two events, he'll try to persuade you that the first event *caused* the second event. He uses the reasoning that "If X happens, then Y will happen." This is known as a **cause-and-effect** pattern of organization. Some clue words here are *Why?* and *Because*. You may ask: "*Why* was there so much flooding in Fort Wayne, Indiana, in the spring of 1982?" The answer is: "*Because* of the heavy snows that occurred that winter."

Unfortunately, many writers use cause-and-effect reasoning when they shouldn't. They'll try to persuade you that two *un*related ideas are related. An example of faulty cause-and-effect reasoning might be:

People who smoke marijuana get hooked on heroin."

Well, a relationship between smoking marijuana and getting hooked on heroin has yet to be established. As a reader, you need to remain alert to the reasoning authors use and decide for yourself if something doesn't sound right. If it doesn't sound right, do some research and see if the author's reasoning was valid or faulty.

A fifth category of signal words are words that **summarize** the author's ideas. These are found at the end of a piece of writing. Chief clue words in this category are *in summary, therefore,* and *in conclusion.*

If signal words are an entirely new concept for you, you may want to memorize three or four representative signal words from each of the five categories. Then, in your reading, if you run across a signal word that's unfamiliar to you, you can try to determine which category it would most likely fit into. The list of signal words presented in this section is by no means comprehensive. Notice also that some of the words can be found in more than one category. For example, the signal words *first, second,* and *third* could indicate either a listing pattern or a time-sequence pattern. The signal word *therefore* can either indicate a cause-and-effect relationship between ideas or serve as a summary. To determine how a signal word is being used, you need to examine the context in which it appears.

Another way to determine an author's pattern of organization is to take a pencil and circle the signal words in the passage. You'll probably discover that not all of the signal words fall into the same category, so pick out the signal words that carry the most meaning and use them to make your determination.

It might be a good idea to slow down your reading for the next few days and study the different signal words that you encounter. Especially note their function within the sentence. For starters, circle the signal words in the following paragraph:

> *In this chapter, we will be concerned with a study of the Pexlomb. A pexlomb is defined as any Zox with pictanamerals which flotate the Zox into five berta Zubs where each Zub is supramatilate to the Rosrey of the Ord. For example, consider the Zox defined by three berta Ooz. It is obvious that any pictanameral which is Blat must necessarily be Cort to the Ord. This follows from our knowledge of the relationship of a dentrex to its voom. However, if the Ord is partivasimous, then the Zox must be Zubious. Thus, if we kizate the zox pictanameral, our Zox will be floated into five berta Zubs. But, remember, each zub must be supramatilated to the Rosrey of the Ord. If any one of the zubs is not supramatilated, we then have a prixilated Pexlomb which requires a completely different procedure.*

Once you learn the meanings of the different signal words, you'll subconsciously start to pick up the information they provide as you read. Learning the meanings of signal words will also help you in your writing. Many students who have good ideas write in an awkward or confusing manner because they aren't able to tie their ideas together. Signal words will provide you with transitions that are necessary for smooth and logical writing.

THE FIVE CATEGORIES OF SIGNAL WORDS

LISTING PATTERN

the following	also
then	in addition
another	furthermore
finally	likewise
moreover	as well as
besides	and
next	lastly
first	more
second	again
third	more than that
additional	

TIME-SEQUENCE PATTERN

first	subsequently
second	until
third	while
last	meanwhile
soon	already
at last	next
then	after
now	during
immediately	in the meantime
ago	afterwards
at that time	started
lasted	when
throughout	from
finally	ended

CAUSE-AND-EFFECT PATTERN

for this reason	hence
in order to	thus
since	consequently
because of	accordingly
so that	as a result
therefore	so
on account of	so that
unless	it follows that
if, then	only if
why	causing

COMPARISON-CONTRAST

even though	on the contrary
but	nevertheless
however	notwithstanding
yet	rather
otherwise	not
although	in spite of
on the other hand	in comparison
despite	conversely
still	except
analogous to	likened
compared	contrasted
while	moreover
instead	

SUMMARY

so	consequently
thus	accordingly
therefore	in summary
in conclusion	in short

PRACTICE FINDING SIGNAL WORDS AND DETERMINING AN AUTHOR'S PATTERN OF ORGANIZATION

Directions: Read the following passages. Circle the key signal words and choose the predominant pattern of organization.

1. Why have floods washed out whole towns in northern California? Because the giant redwoods are being used for lumber.

   Before these majestic forests were destroyed, the redwoods helped to absorb the water and anchor the soil during heavy rains. Now, the rains fall hard on the stripped land, then roar down the bare hills and finally wash away the topsoil, causing deep erosion and widespread flooding.

   Destroying the redwoods has disrupted the balance of nature in northern California. The effects of this lumbering will be felt for generations to come.

   a) listing
   b) time-sequence
   c) cause and effect
   d) comparison-contrast

2. There are many different kinds of maps, but most of them can be classified as one of the following three types. The political map emphasizes the location of features people made, such as state and county boundaries, cities, towns, and parks. Another kind is the physical map, which emphasizes the natural features of a country or a region such as mountains, rivers and forests. There is also the special purpose map, which emphasizes one particular feature, either made by people or occurring naturally, such as temperature, location of industries, or routes of early pioneers.

   a) listing
   b) time-sequence
   c) cause and effect
   d) comparison-contrast

3. Nature's Dew is the natural shampoo that makes your hair fresh and clean. Because we use ingredients right from the garden, a subtle aroma of herbs and spices lingers throughout the day when you wash your hair with our shampoo.

   a) listing
   b) time-sequence
   c) cause and effect
   d) comparison-contrast

4. Nature's Dew actually nourishes your hair. Some shampoos have harsh detergents, which leave your hair limp and dull. Nature's Dew, on the other hand, has no harmful detergents. It leaves your hair shiny, soft and manageable.

   a) listing
   b) time-sequence
   c) cause and effect
   d) comparison-contrast

5. You'll actually enjoy washing with Nature's Dew. First, wet your hair with warm water, then work up a good lather and feel your hair come alive. After shampooing, rinse carefully and dry. Your hair will have new bounce and shine.

   a) listing
   b) time-sequence
   c) cause and effect
   d) comparison-contrast

6. **Extremes of Wealth and Poverty.**

   Rome's conquest of an empire also had the bad effect of widening the differences among the Roman people themselves. The upper classes, who profited most from the long wars and the exploitation of the provinces, became very wealthy. They were able to buy town houses, large country estates, and many slaves. By bribing the voters with expensive entertainment, they became more and more dominant in the government, especially in the Senate.

   The common people, on the other hand, were often reduced to poverty and dependence. While the small farmer was away in the army, his farm was neglected. When he returned, he found himself unable to compete with the large estates of the wealthy, which were worked by slave labor. Soon he fell into debt, lost his farm, and joined the growing number of unemployed in the city of Rome. The poverty and discontent of an even larger number of its citizens was a bad omen for the Roman Republic.[1]

   a) listing
   b) time-sequence
   c) cause and effect
   d) comparison-contrast

[1]Examples 6-9 come from the text *Past To Present* by Sydney H. Zebel and Sidney Schwartz. © Macmillan Publishing Co., Inc., 1960.

7. **LIFE OF THE MEDIEVAL SERF**

A Poverty-Stricken Existence.

Because of the small crops and heavy manorial dues, poverty was the lot of most of the serfs. The average serf family lived in a tiny mud hut with a straw-thatched roof. Behind it were a small garden plot and a chicken yard where poultry, pigs, and half-naked children foraged and played together. The only furnishings within the hut were a crude table, some stools, and a straw-covered wooden bed. The serf's food was a simple diet of dark bread, cheese, a few vegetables, and an occasional egg or bit of meat.

To earn even this poor living, the serf had to work long and hard. He arose before dawn, ate a meager breakfast, put his lunch into a pouch around his waist, and went out to work in the fields. All day long he toiled—plowing, hoeing, or weeding—stopping only briefly to eat. The women cooked, baked, and made all the clothing for the family. Often they worked alongside the men in the fields or helped out in the lord's castle. Even young children were also assigned farm chores. Only if the whole family worked hard could they produce enough for the lord and themselves.

a) listing
b) time-sequence
c) cause and effect
d) comparison-contrast

8. **THE PROBLEMS OF POWER**

Misrule of the Provinces.

This vast empire brought the Romans tremendous responsibilities. The most immediate problem was to govern the territories outside Italy. However, instead of treating the newly conquered peoples like the Italian allies, the Romans divided the empire into provinces, each under a Roman governor. The subjects were allowed to keep their own language, religion, and laws, providing they paid tribute to Rome and recognized the supreme authority of the Roman governor.

Unfortunately for the conquered peoples and for Rome too, the Senate appointed provincial governors for only a one-year term. This was much too short a time for them to learn their duties. Besides, since there was no system of supervision, the governors generally used their position to enrich themselves. A Roman historian wrote that a governor made three fortunes from his province—one to repay the sums he had spent in securing his appointment, the second to bribe the judge when he was tried for his misdeeds, and the third on which to live in luxury for the rest of his life.

a) listing
b) time-sequence
c) cause and effect
d) comparison-contrast

Another evil was the system of tax collecting in the provinces. The Roman government usually did not collect the taxes itself. Instead, it sold the privilege to private businessmen for a fixed sum. The tax collectors made huge profits by collecting much more than the government required. They also acted as moneylenders, charging a very high interest rate on their loans. Especially in the rich and populous eastern provinces, the conquerors drained off the wealth of the conquered peoples.

Widespread slavery.

Other serious problems arose from the ever increasing number of slaves. For centuries, wars supplied a steady stream of captives for the busy slave markets. The Romans actually started some wars just to meet the demand for cheap labor! The slaves came from every section of the Roman world. Those who had good education, fine manners, or attractive appearance held positions as household slaves, entertainers, clerks, teachers, or even as managers of their masters' business affairs. The great majority, however, labored on the large estates, in the mines, or as oarsmen on the galleys, until death relieved them of their miseries.

9.

Civil Wars.

A generation later, the People's party found a new leader in a victorious general, Marius, who was elected consul in 108 B.C. Marius raised an army of volunteers drawn from the ranks of the landless and unemployed, instead of drafting an army from all citizens as had been the custom. These men were rewarded with loot in wartime and the promise of a farm in peacetime. Thus they were loyal to Marius rather than to the government. With an army to rely on, Marius ignored the law limiting service as consul to one term and was re-elected six times. Marius also re-enacted the reforms begun earlier to help the common people. His actions naturally aroused the anger of the Senatorial party.

In 88 B.C. the Senate chose an aristocratic general named Sulla to lead the Roman army in an invasion of Asia Minor. The People's party chose Marius. A civil war broke out, during which control of Rome changed hands several times. Whichever party came into power executed the opposition leaders as traitors. Finally Sulla won out and made himself dictator. Like Marius, Sulla had transformed the Roman army from a force of citizen soldiers to a professional army of paid veterans loyal only to their commander. The legions, which had conquered so many other peoples, were now being used by ambitious generals against the Romans themselves.

a) listing
b) time-sequence
c) cause and effect
d) comparison-contrast

The Dictatorship of Julius Caesar.

After Sulla's death, a general named Pompey controlled Rome. Pompey had made his reputation by conquering Syria and other eastern territories. Sharing power with him was Julius Caesar, a young aristocrat and a leader of the People's party.

While consul in 58 B.C. Caesar had himself appointed to a special military command. This gave him the opportunity to conquer the whole of Gaul (roughly the area of present-day France and Belgium). By sending back accounts of his many victories, Caesar won great popularity with the people.

DETERMINING AN AUTHOR'S TONE

We've already discussed the fact that writers use signal words to organize their ideas. Besides being concerned about organization, writers are also concerned with the individual words they select, the length of their sentences, the length of their paragraphs, and their use of grammar and punctuation. By analyzing these things, a reader can get more from a piece of writing than just the content that's presented. By analyzing these things, a reader can determine how an author *feels* about his subject. These feelings are called an author's **tone**.

An incident—say, a Presidential campaign—could be approached by different writers using different tones. One writer could present the facts—who, did what, to whom, when, and where. Another writer might be highly critical of the smear techniques that were used in the campaign and will write about that in hopes that politicians would not engage in those techniques in the next campaign. Still other writers—Art Buchwald, for example—will approach the event from a humorous point of view to make people laugh.

Although most writing has a mixture of tones, there's usually one tone that dominates. You can identify the tone of a piece of writing by examining the nouns, pronouns, and verbs and by looking at the length of the sentences, the grammar, and the punctuation. For instance, the use of the first person "I," incomplete sentences, and the use of dashes usually indicates an informal piece of writing. Another way to determine an author's tone is to look at where the article was published and try to figure out the author's purpose for writing.

Two people reading the same article may not agree on the tone. A young person experiencing growing pains may read an article about a teenager's struggles and say that the tone was serious. An older person may read the experiences described in the article, find them amusing, and say that the tone was humorous.

In this section, we'll identify ten of the most common tones authors use. By learning the following characteristics, you should be able to gain added insights not only about the material you're reading but about the author as well.

TEN OF THE MOST COMMON AUTHOR'S TONES:

1. **Serious, or formal**. Textbooks are an example of writing that's formal. When you read a textbook, you'll probably find a very neutral tone to the writing. It's factual, written in the third person, and has an absence of exaggeration, humor or wit.

Formal writing should tell a story in an unbiased way. For example, a history book describing Custer's last stand should present the basic facts—who, did what, to whom, where, and when. It should not try to convince the reader that the Indians were right or wrong or that Custer was right or wrong. After the facts are presented, readers can form their own opinions.

Formal writing, as found in textbooks and newspapers, should be highly reliable. When a sportswriter lists the statistics from a basketball game, you can be reasonably sure they're accurate. Publishers of newspapers and textbooks have entire staffs whose job it is to check and make sure the facts are correct.

When a serious piece of writing fails to present both sides of a story, we say that writing is **slanted**. Here the writer reports only those facts favorable to one point of view. He colors the story in such a way that you come away taking his side on the issue. You can find examples of slanting in many places. Read two different newspaper stories on the same event. Notice how the writer's choice of words colors the story to make the event sound either positive or negative.

Another characteristic of serious writing is that it has a high degree of structure and organization. It makes use of the conventions of headings, subheadings, topic sentences, and summaries. Key words are italicized, headings are in bold type, and charts and graphs are included to illustrate the important concepts. This is why you can use a technique like the SQ3R to find the main ideas. Technical vocabulary is presented and defined, either within the chapter or in the glossary at the back of the book.

The following paragraph is an example of formal writing. Notice the use of technical vocabulary, the rather lengthy sentences, and the flawless grammar.

> *Socialization is the complex process of social learning whereby an individual internalizes the norms, values, beliefs, and expectations of other society members. From a societal perspective, socialization is necessary to ensure social order and the continuity of culture from one generation to the next. The socialization process accounts not only for the likenesses among a society's members, however, but also for some of the differences. Because each individual participates in a different combination of groups and subcultures, and because each responds to his social environment in his own way, socialization produces a wide range of personality configurations and behavior patterns.*

2. **Informal.** Informal writing is generally everything that formal writing is not. To begin with, its purpose is not to inform, but to simply reach out and touch base with someone. A letter to your parents is a good example of informal writing. Think of the characteristics of the last letter you wrote home. What was its purpose? Were there any mistakes in spelling? Probably! Were your sentences long, varied in length, or short? Did you even consider sentence length when you were writing?

How accurate was the content? Did you perhaps exaggerate a detail or two to make the letter a little more interesting? How about your use of humor? Was the letter predominately light-hearted? Exaggeration and use of humor are two distinct characteristics of informal writing.

Of course the biggest tip-off that a piece of writing is informal is the use of the first person "I." Other tip-offs would be incomplete sentences, use of dashes, and not a great deal of attention paid to paragraph structure. In fact, some letter writers just start writing and keep the same paragraph going until they get to the end of the letter. Grammar, spelling, and punctuation are not of great concern to a writer using an informal style. He can achieve his purpose equally well without them.

3. **Humorous, or entertaining.** The purpose of this kind of writing is to make people laugh. Erma Bombeck is an example of a humorous writer. She writes about her experiences as a wife and mother, not to change the world, but simply to make people laugh. Humor is gentle, good-natured, and natural. It has no deep underlying motive, and nobody gets hurt. Here's an example of humor à la Erma Bombeck:

> *I once read a poll of what husbands think their wives do all day long.*
>
> *The results were rather what you would expect.*
>
> *Thirty-three percent said women spent five hours out of each day putting lint on their husband's socks.*
>
> *Twenty-seven percent said they spent four hours daily pouring grease down the sink and watching it harden to give their husbands something to do when they got home.*
>
> *Ten percent swore their wives held the door open all day to make sure all the warm/cool air (depending on the season) got out of the house.*
>
> *A walloping 58 percent said women divided their time between hiding from the children, watching soap operas, drinking coffee, shrinking shirt collars, discarding one sock from every pair in the drawer, lugging power tools out to the sandbox for the kids to play with, and trying to get the chenille creases out of their faces before their husbands came home.*

4. **Witty.** Witty writing differs from humorous writing in two ways. First, it usually has a purpose behind it. The author takes a situation—say, a current event—and writes about it so that is seems silly or ludicrous. His purpose is to make his readers see the absurdity of the situation or to see it from a different perspective. Humor tries to make people laugh; wit tries to make them think.

While most people can enjoy humor, wit is designed more for the intellectual. A play on words is common in witty writing. To understand the meaning, a reader must have a fairly good vocabulary.

The following example of witty writing is from an essay by Roger Rosenblatt published in *Time* magazine:

> *It is always heartening to see an art revived, especially when you have forgotten how much pleasure it affords. The art of buck passing, for instance. It popped to life in New York a couple of weeks ago when Bruce Caputo, a candidate for the U.S. Senate, was caught as having described himself as a Viet Nam-era draftee and Army lieutenant. Mr. Caputo was neither. Yet when confronted with the fact that he had falsified his credentials in "Who's Who in American Politics," he rose to the occasion as Michelangelo once rose to the ceiling. "To the extent that I or somebody on my staff was less than careful, we made a mistake." Thus in a single sentence he was able to identify the lie as carelessness and to imply that if anyone at all was responsible (a question he opens), it was probably an underling. Mr. Caputo is small potatoes, but his comment is buck passing at a very high level. When you see a performance like his, you see how intricate the art can get.*

5. **Sentimental.** In this style of writing, the author wants to appeal to the reader's emotions. If you get tears in your eyes when reading a sentimental piece of writing, the author has achieved his purpose. Poetry and music lyrics are two examples of writing that is often sentimental. However, the emotions that a writer wants to elicit here do not run the whole

gamut. A sentimental author does not, for example, want to make you mad, like a critical writer might want to do. The emotions a sentimental writer wants to elicit from you are warmth, tenderness, sadness, or feelings of nostalgia.

Here's an example of sentimental writing by Rod McKuen:

I have come as far away
as means and mind will take me
trying to forget you.
I have traveled, toured
turned a hundred times in the road
hoping to see you rushing after me.

At night,
though half a world away,
I still hear you sigh in several sizes.
The breathing softer when you're satisfied.
The plip-plop body machinery back to normal.
Remembering how warm you are
and how defenseless in your sleep
never fails to make me cry.
I cannot bear the thought of you
in someone else's arms
yet imagining you alone is sad.

6. **Critical.** An example of this kind of writing would be a review of a book, a movie, or a play. The writer is usually an expert in his field and can place a value judgement on what he's seen or read. Critical writing, ideally, is objective—that is, even though the writer is stating good and bad points in his own opinion, he backs up his statements with facts. In essence, he takes an event apart and analyzes the various pieces.

Here's an excerpt from a review of the book *The Boys from Brazil:*

A novel by Ira Levin is like a bag of popcorn; utterly without nutritive value and probably fattening, yet there's no way to stop once you've started. Clutching a strap on the IRT in rush hour, I fumble in my briefcase for "The Boys from Brazil," desperate to read a few more pages before the next stop. Why? I wouldn't shove my fellow commuters about to get room to read "Swann's Way." And besides, this novel, like all of Levin's novels, is preposterous.

7. **Sarcastic.** Although sarcasm is a type of criticism, the difference is that it is *not* open and objective. The language of sarcasm is bitter, caustic, and stinging. Its purpose is to put someone or something down.

A sarcastic comment is one where you say the opposite of what you really mean. You may say the words "I really like this class," but your tone indicates that you mean just the opposite. Saying the opposite of what you mean is sometimes referred to as "tongue in cheek."

Many letters to the editor in newspapers are full of sarcasm. The writers say the opposite of what they mean as a device to get your attention:

HAND JUSTICE OVER TO A CONVICTED MAN?

What a novel idea Lewis Wireman seems to have! After having been convicted of burglary, he wants to become prosecuting attorney and control justice administered to perpetrators and victims of such crimes.

Some people already think it's strange the way our laws work. We have had several murders, with few ever caught, and a very small conviction rate for those who are. Drunk drivers who kill and maim seldom ever go to jail. I sometimes think some of our children could do a better job of administering our laws.

If I were an attorney, I would hide my head in shame. I realize they make a living with the law, but must they make a joke of it? Mr. Wireman provides an example. Here is a man who had all of our trust at the highest level, and after being given benefit of the doubt in a jury trial, was found guilty and sentenced to prison and disbarred. Even though he was able to force the taxpayers to pay for his appeal, I wonder if he might be able to get the county to pay for a possible political comeback.

I would be the first to say that I am not impressed with our present prosecutor, but to think of Mr. Wireman as a prosecutor, with what we know about him from sworn testimony and a jury's verdict, is really a joke. I call upon honest lawyers and voters never again to give this man a job of public trust; how else can we teach our children respect for the law?

8. **Cynical.** Cynical writing is characterized by its extremely negative tone. Cynics hate everything. They believe life is bad, people are bad, and things are never going to get any better. A true cynic is so negative that if a child fell into a lake and a boy scout jumped in and saved the child's life, the cynic would accuse the boy scout of trying to get his name in the paper. Scrooge was a cynic.

The cynical writer is out to prove that man is basically evil and corrupt. The following piece of writing is rather cynical:

The popular notion about marriage and love is that they are synonymous, that they spring from the same motives, and cover the same human needs. Like most popular notions this also rests not on actual facts, but on superstition.

Marriage and love have nothing in common; they are as far apart as the poles; are, in fact, antagonistic to each other. Marriage is primarily an economic arrangement, an insurance pact. It differs from the ordinary life insurance agreement only in that it is more binding, more exacting. Its returns are insignificantly small compared with the investments. In taking out an insurance policy one pays for it in dollars and cents, always at liberty to discontinue payments. If, however, woman's premium is a husband, she pays for it with her name, her privacy, her self-respect, her very life, "until death doth part." Moreover, the marriage insurance condemns her to life-long dependency, to parasitism, to complete uselessness, individual as well as social. Man, too, pays his toll, but as his sphere is wider, marriage does not limit him as much as a woman. He feels his chains more in an economic sense.

9. **Satirical.** Satire is another type of criticism, but like sarcasm, it is not open and objective. The purpose of satire is to get people to go out and do something about a problem. You can find examples of satirical writing in such fields as politics, religion, and education, where people are trying to make changes.

An example of satire that you may be familiar with is *Gulliver's Travels*. The author, Jonathan Swift, was portraying conditions in England in hopes that his readers would feel a need for change.

10. **Ironic.** In irony, the author starts you in one direction, and just when you think you know what's going to happen, there's a dramatic turn of events. Irony is usually always characterized by a surprise ending, as seen in O'Henry's short story *The Gift of the Magi*. If you recall that story, a young couple is very much in love but they don't have much money. Wanting desperately to buy each other a Christmas present, the heroine cuts her hair (her most prized possession) and sells it to buy her husband a chain for his watch (his most prized possession). When she presents the chain to her husband, she discovers that he no longer has the watch. He sold it to buy her a comb for her hair.

HOW TO INCREASE YOUR READING SPEED

We've emphasized the need for keeping your comprehension high when you read—that is, there's no point in reading if you're not getting anything out of it. Now let's discuss reading speed.

Perhaps the greatest skill regarding speed is to learn to vary your speed when you read different types of material. Junk mail, for example, is something you'll probably want to open, look at quickly for the main idea, and then throw away. If you're reading an exciting adventure story and the author suddenly throws in a long, descriptive paragraph that doesn't advance the plot, you might want to skip over it and pick up where the plot begins again. If you're semi-interested in an article in a popular magazine but are short on time, you may want to skim through and just read the first sentence of each of the paragraphs. In essence, there are many different ways to speed up your reading. Of course there's a tremendous connection between reading speed and vocabulary. When a reader runs across a word he doesn't know, that's bound to slow him down.

If you're really serious about increasing your reading speed, enroll in a speed reading course at your college or university. Many colleges offer such courses for credit. When students practice under a trained professional on a regular basis in a structured environment, they've been known to double their reading speed without any loss of comprehension. In fact, what normally happens is that comprehension goes up. You should especially consider this option if you're going into a field that requires a great deal of reading, such as medicine, law, or engineering.

This brings us to a discussion we had back in Unit II regarding thought speed. If a professor lectures at 125 words per minute and you can think at 1,000 words per minute, you have all of that extra time in your head to do something with. The normal tendency is to daydream. Well, the same thing can happen when you read. If you read too slowly, you'll be bored and your mind will start wandering. You'll find yourself having to go back and re-read the paragraph, which will slow you down even more.

Again, you need to vary your reading speed depending on what you're reading. A statistics book, for example, is going to need to be read slowly, word-for-word, and repeatedly.

DETERMINING YOUR READING SPEED

Just for fun, let's determine what your reading speed is for recreational reading and compare that to the reading speed of the average college freshman. Using a paperback book, do the following:

1. Time yourself with a kitchen timer, a watch, or a clock with a second hand. Start reading at the beginning of a chapter and read for exactly five minutes. Mark in the book where you stopped reading.

2. Count the number of words in three lines in the book and divide by three. (The number of words per line varies, so a three-line average will give you a more accurate count.) This will give you the average number of words per line.

3. Add the total number of lines you read and multiply by the number of words per line.

4. Divide the total number of words you read by five. This will give you the number of words you read per minute.

If your rate was between 250 and 350 words per minute, you're considered to be an average reader. If it was between 350 and 400 wpm, you read pretty well, and if you read more than 450 words per minute, you're fast! This exercise, of course, is only a rough estimate of your reading rate. To make it more accurate, you'd need to take a test on what you just read. If you read 450 wpm and only got 50% of the questions right on the test, it doesn't really count. Remember, it's speed *and* comprehension that we're after.

HINTS TO SPEED UP YOUR READING

Here are a few hints on how you can speed up your reading:

1. Avoid **regression**. Don't go back and re-read a word or phrase you just read. Keep moving. Concentrate on the material so hard that you pick up on the ideas the first time through. And if you do miss a word or two—forget it. Most writing is redundant. It says the same thing more than once.

2. **Avoid moving your lips**. This is a habit that will invariably slow you down. Ask someone to watch you as you read. If they report seeing your lips move, try holding a pencil in your mouth as you read, or try chewing gum.

3. **Avoid stopping at every single word.** This is called word-by-word reading. You'll read a lot faster if you look at words in pairs or in groups. For example, if you read the previous sentence word-by-word your eyes would stop fifteen times. Retrain yourself to look at words two and three at a time, in phrases that make sense.

"You'll read a lot faster if you look at words in pairs or in groups."

4. **Use your finger to move your eyes faster.** Some experts suggest putting the index finger of your right hand under every line and moving it at a smooth, comfortable pace. According to reading expert Nancy Fitzpatrick in an article in *Family Magazine*, "The psychology behind using the finger is that if you discard a bad habit (in this case, slow eye movement), you must replace it, otherwise there's a strong possibility you'll revert to the old habit. An example of this same principle can be found with many ex-cigarette smokers. Pencils, candies, table rapping and gum chewing are their habit replacers, and they serve a useful purpose."

5. **Avoid subvocalization**. This is saying the words out loud in your head. Actually, this is the way we first learned to read, so that's why it's such a difficult habit to break. It's hard to read:

"Little Miss Muffet sat on a tuffet . . . " without *saying* those words in your head. A little of this is all right, but the problem is, when we read out loud we read only about 125 words per minute. You should be able to read and comprehend a lot faster than that. Fast readers, somewhere along the line, just simply learned to speed up.

6. **Improve your vocabulary**. Again, your vocabulary and your reading speed may be extremely important depending on the career you're planning to pursue. If you're serious about improving your vocabulary, enroll in a vocabulary improvement course. Or, study one of the many vocabulary improvement books on the market. Or buy one of the calendars that teaches a new word every day.

SAMPLE TEST QUESTIONS

Directions: Write the letter of the *best* answer in the space provided.

_____ 1. When only one side of a story is presented in a piece of writing, we way that writing is:
(a) persuasive
(b) reliable
(c) formal
(d) critical
(e) slanted

_____ 2. A piece of writing full of exaggerations would definitely NOT be which of the following styles?
(a) formal
(b) informal
(c) persuasive
(d) slanted
(e) humorous

_____ 3. When the author is extremely negative about the world or the goodness of man, his tone is:
(a) sarcastic
(b) cynical
(c) serious
(d) persuasive
(e) satirical

_____ 4. "Unless" is a signal word that shows an author is tying her ideas together:
(a) in a comparison-contrast relationship
(b) in a time-sequence relationship
(c) in a listing pattern
(d) in a cause-and effect pattern

_____ 5. "Furthermore" is a signal word that shows an author is tying her ideas together:
(a) in a comparison-contrast relationship
(b) in a time-sequence relationship
(c) in a listing pattern
(d) in a cause-and-effect pattern

_____ 6. Another term for saying the words that you read aloud or mentally is:
(a) word-by-word reading
(b) regression
(c) subvocalization

_____ 7. In which step of the SQ3R do you actually read the text?
(a) first
(b) second
(c) third
(d) fourth
(e) fifth

_____ 8. Going back and rereading material you've already read is called:
(a) word-by-word reading
(b) regression
(c) lip moving
(d) subvocalization
(e) syllable-by-syllable reading

_____ 9. Located at the end of a book, this is a dictionary of terms that the author uses in the book.
(a) footnotes
(b) appendix
(c) bibliography
(d) index
(e) glossary

_____ 10. The use of the first person in a piece of writing is usually a tip-off that the author is using what style?
(a) serious
(b) humorous
(c) witty
(d) slanted
(e) informal

_____ 11. Poems and song lyrics usually reflect which style of writing?
(a) serious
(b) informal
(c) persuasive
(d) sentimental
(e) witty

_____ 12. In which step of the SQ3R do you read the graphs, charts, illustrations, and captions?
(a) first
(b) second
(c) third
(d) fourth
(e) fifth

UNIT IV

HOW TO IMPROVE YOUR TEST-TAKING SKILLS

INTRODUCTION TO THE UNIT

Has this ever happened to you? You spend days studying for a test. You review all your class notes, you read the chapters that were assigned in the text, and you feel confident that you know the material. But, when you go to take the test:

(a) your mind goes blank,

(b) you can't figure out where the professor got the questions from (they certainly didn't come from the material you studied),

(c) you answer everything correctly (you think), but when the test is returned, you find you've gotten a low score,

(d) all of the above.

There's probably nothing more frustrating for a student than to study for a test and then not do well on it. The fact is, test taking is a skill, and some people can take tests better than others. Some students are automatically drawn to the right answers on a test, while others have a knack for attracting the wrong ones. A thorough knowledge of the content of a course is only a beginning. To do well on a test, you must also know how to take one.

If you dread taking tests, don't think that your misery will end when you finish school. You'll be taking tests the rest of your life. For instance, you're required by state law to take a written test to earn or renew your driver's license. Prospective government employees must pass civil service tests and are then assigned jobs based on their scores. Police officers take tests to be promoted. Real estate agents, insurance agents, dental hygienists, pharmacists, lawyers, and certified public accountants must all pass tests in their respective fields before they can practice their professions. The list goes on and on.

On the brighter side is this fact: test taking is a skill that can be developed with practice and the proper guidance. This unit is designed to help you sharpen your test-taking skills so that you can start getting higher scores on tests.

We'll begin by presenting some general suggestions on how to take tests in college and briefly examine some of the different kinds of tests that are given at the college level. Then we'll look in detail at the two kinds of tests that are given most frequently—multiple choice and essay tests. Learning how to study for an essay exam will help you improve your score on any test you take.

UNIT OBJECTIVES

At the completion of this unit, you should be able to:

1. List and explain the five functions of tests.
2. List ten hints for preparing for tests and nine hints for your behavior during a test.
3. Role-play the appropriate behavior on the part of a student who gets a test back with a question marked wrong that isn't wrong.
4. Explain ten reasons for eliminating options on a multiple choice test.
5. Answer ten true-false questions using the principles presented in the unit.
6. Define the three levels of reading comprehension and explain why this information is important in regard to test-taking skills.
7. List and explain six hints for taking an oral test.
8. List and explain ten hints for preparing for and taking an essay test.
9. Define a list of words that appear most frequently in the directions of an essay question and identify which ones allow the reader to state his or her own opinion.
10. Grade three essay answers and justify your grades.
11. Write an essay answer that:
    (a) answers the question
    (b) has a clear pattern of organization
    (c) has support for your main points
    (d) does not change voice
    (e) uses 100% words correctly
    (f) does not give an opinion unless called for

HOW TO TAKE TESTS AT COLLEGE

WHY TESTS EXIST

Tests are an integral part of the educational system and serve many functions. Increasing your understanding of those functions may improve your attitude toward tests and hence your performance on them. The five primary uses of tests include discrimination among people, motivation for study, evaluation of learning, evaluation of teaching, and evaluation of student/teacher interaction.

1. **Discrimination among people.** One function tests perform is to discriminate among the people taking the test. For example, some companies require a job applicant to achieve a certain score on a test before he or she can be considered for employment. To be accepted into most graduate school programs, a student must perform well on the Graduate Record Examination (GRE). And some schools—like veterinary science or law—have so many applicants that they use many different criteria for admission and select only those people who excel in all areas.

The Law School at Indiana University, for example, has an excellent reputation and only a limited number of openings every year. If you were applying for admission there, you'd have to score at least 630-650 on the LSAT test and your undergraduate grade point average would have to be between 3.3 and 3.4 on a 4.00 grading system. The higher your score on the LSAT and the higher your grade point average, the better your chances of being accepted.

2. **Motivation for study.** If tests didn't exist, many students would never open their books. While some students might go ahead and learn the material on their own, most students need the external motivation that tests provide to keep up with their work. In a way, when professors schedule frequent tests in their courses, they're doing you a favor. By asking you to constantly retrieve the information, they're making sure that you're keeping it fresh in your mind.

3. **Evaluation of learning.** Tests tell students how much they've learned. Actually, they tell them how much the professor who's teaching that particular class thinks they've learned. As human beings, we all have a need for feedback when we've performed in some way. After we've devoted time to learning a new subject, it's nice to find out how we've done.

4. **Evaluation of teaching.** Tests are a way for instructors to find out whether or not they're being effective. If an instructor administers a test and all of his students miss a particular item, he knows that he either has a poor test question or that he didn't explain that material very well. Perhaps the students need more exposure to the material, or perhaps the instructor needs to find a different way of presenting it.

5. **Evaluation of student/teacher interaction.** Tests give students a way to find out how well they know their professors. An important part of college is trying to figure out what things the professor thinks are important and then learning those things. To the extent that you're able to figure out what the professor wants you to know (and, of course, professors all want different things), you'll do well in the course. Some students are much better than others at figuring out what their professors want. They pay attention to all the little things—like how the professor emphasizes main points, or how the study questions are worded.

How well you're getting along with your professor may effect your score on a test. Many tests in college are **objective**—that is, a specific answer key is used and no matter who grades your test, your score will be the same. But sometimes professors give **subjective** tests. Here your score can vary from one grader to another. Essay tests and English themes are examples of subjective tests. Ethically, graders aren't supposed to know whose test it is they're grading. Unfortunately, most instructors become familiar with their students' handwriting and, even though they try to be as objective as possible, it's hard for them to totally ignore their feelings about students when they're grading papers. Two things can happen. When an instructor likes a student and has a tendency to overlook mistakes on that student's paper, it's known as the **halo effect.** On the other hand, if the instructor isn't particularly fond of a student, in a situation where there's a question, the instructor may not give the student the benefit of the doubt.

PREPARING FOR TESTS

1. **Use class time to actively begin learning the material.** According to William Farquhar, a leading authority in the field of study skills, "preparation for an examination begins the first minute of the first day in a course." Many students attend classes and take notes, but they do it mechanically, without becoming involved in the class or in the material. If you expect to do well on the tests in your courses, it's important that you attend *all* of your classes, that you maintain a positive attitude about the professor and about the course, that you take thorough, accurate lecture notes, that you take an active interest in the material, and that you participate in class discussions.

2. **Don't procrastinate!** Keep up with your assignments.
3. **Keep the material fresh in your mind.** Review your notes daily.
4. **As test time approaches, find out exactly what will be on the test.** Is there any material that won't be on the test? Will a greater number of questions come from the textbook or from the lectures? Is the test comprehensive? Will there be material from previous tests on it?
5. **Obtain copies of tests that were given in the course in previous semesters and practice taking them.** School libraries, student governments, dormitories, and fraternities and sororities often have files of old tests. Examine the test to see if you can find any patterns to the questions on it. For example, does the professor primarily ask literal questions? Interpretive questions? Applicative questions? Does he make up fictitious terms to try to throw you off? Does he paraphrase material, or does he stick strictly to the terms used in the book? Does he ever inadvertently give the answer to a question somewhere else on the test? Does he like using the options "all of the above" and "none of the above" for the correct answer?
6. **Start studying at least a week before the test is scheduled.** Make a study schedule and plan to cover a different portion of the material every night. Almost all of your studying should be completed by the night before the exam. The night before an exam is not the time to try to learn new material.
7. **Study for all of your tests—no matter what kind they're going to be—as if you were going to have to take an essay test over the material.** Studies show that students who expect a multiple choice test memorize unrelated facts and don't bother to form opinions about the material they're studying. They may do all right on the test, but they'll probably forget the material soon afterwards, which is a problem if you're taking a course that gives comprehensive finals. On the other hand, students who expect an essay test organize the information as they learn it, see relationships among the ideas, and have a deeper level of understanding of the material. They also tend to form personal opinions about the topic and can therefore remember it longer.
8. **Stay healthy!** Be sure to eat right, get enough sleep, and exercise. It's difficult to study for a test or do well on one when you don't feel well.
9. **Have at least one review session with another member of the class.** By quizzing each other, you'll find out what portions of the material other people think are important. Choose someone who usually gets good grades. If your partner doesn't do well on this particular test, find a new study partner for the next one.
10. **Pay particular attention to any printed study guides that your professor may pass out prior to the test.** If you're lucky enough to receive a list of study questions, be sure to learn the answers to them.
11. **Make sure you attend the class period immediately preceding the test.** Instructors sometimes give out last-minute hints on how to prepare for the test as well as an occasional answer to some of the questions.
12. **Get a good night's sleep the night before the exam.** For most tests, a clear mind is better than one that's crammed with a lot of last minute material.

THINGS TO DO DURING THE TEST

1. **Arrive at the test early with all of the equipment you were told to bring.** (Number 2 pencil, calculator, etc.)
2. **Don't get uptight!** The only reason for you to get nervous is if you didn't study enough.
3. **Skim the test as soon as you get it.** See how long it is, which sections are worth the most number of points, and which questions will be easiest for you.
4. **Read the directions carefully.** Many points are lost on tests because students are too anxious to get started. Also, some students are in such a tight mind-set after studying that they'll frequently give an answer to what they *think* the question should be and not to what the question really asks. To make matters worse, sometimes the directions change in the middle of a test. For example, the directions on a multiple choice test may change from having you find the *most* likely answer to a question to having you find the *least* likely answer in the next question.

   On a matching test, for example, read carefully to see if you're expected to use *all* of the items in the right hand column, and check to see if you can use any of the answers more than once. As far as test directions are concerned, stay flexible and be ready for anything.
5. **Be aware of your progress throughout the test; stay conscious of how much time you have left.** Many classrooms do not have clocks, so you should plan to wear a watch. Even if the room does have a clock, it's better to look at your

own watch rather than look up and take the risk of seeing something that'll be distracting, like other students turning in their papers and leaving. Don't panic if other students turn their papers in before you. We all read and take tests at different speeds. It may be that people leaving the test before you didn't know any of the answers.

6. **Keep a positive attitude, even if things look bleak.** Sometimes the right answer will come to you if you keep a clear head and don't panic.
7. **Look for clues on the test.** Sometimes the answer to one question is given in another one.
8. **Unless directed otherwise, write something for every question.** If it's a multiple choice test, make sure that you've answered each of the questions before you turn your test in. If it's a short answer or essay test and you're running out of time, write something for each question—even if it's just a word or two. If it's a problem-solving test and you can't arrive at the correct answer, at least write down the steps you are able to do.
9. **NEVER cheat.** Flunk a test if you have to, but don't cheat . . . . it's a great way to get kicked out of school. More than that, cheating is not reflective of the kind of person you want to be.

WHAT TO DO WHEN THE TEST IS RETURNED

1. **Take the test home and study it.** Check your incorrect answers with the textbook and your class notes to see where you went wrong. Is there a pattern to the questions you missed? Did you primarily miss questions concerning the course terminology? If so, you'll know to study course terminology a little harder for the next test. Did you answer the literal questions correctly but miss the interpretive ones? If so, you'll need to adjust your study methods for the next test and concentrate more on drawing conclusions from the material that's presented.

   A test should be a learning experience; it won't be of any use to you unless you examine it after it's been graded and check your answers with the answers the professor wanted. Also, be sure to keep your tests so you can use them to study for the final examination.
2. **Give your professors constructive feedback about their tests;** it'll help them improve the test the next time they give it. It's all right to tell your professor that the wording of a particular question was confusing or that the test didn't cover what you thought it was going to cover—if you do it in a non-argumentative way. And if you can do it sincerely, compliment your professor on a test that you think was well written.
3. **If you get a test back that you think was graded unfairly, don't argue with the professor.** No matter how right you may feel, you have everything to lose and nothing to gain by confronting the professor in class. Professors are sensitive people. They can be highly sensitive about the tests they give. By criticizing your professors' tests, or saying something that they can interpret as a criticism, you're attacking them on a personal level.

   The best way to discuss a test with a professor is to make an appointment to talk about it in the professor's office, away from the rest of the class. If you're upset about the test, take it home, study it, and wait until you've calmed down before you go see the professor. If there's a question that you feel was graded unfairly, collect evidence from your textbook and from your class notes showing why you answered the question the way you did. When you meet with your professor, present that evidence in a calm, collected manner.

   It's important not to put pressure on your professors to change your grade. Remember, they're in charge. Too often a student will back a professor into a corner and force him to change a grade. The student may have won the battle, but he may also be unpleasantly surprised when he sees his grade at the end of the course. Even if your professor doesn't give you that extra point, if you can leave with a smile on your face, you may make such a good impression that you'll get a higher grade at the end of the semester. Professors are human beings. You'll get a lot more out of them if you treat them with courtesy and respect.

HOW TO HANDLE A MULTIPLE CHOICE TEST

Perhaps the first step toward learning how to handle a multiple choice test is learning about the questions. Multiple choice questions are made up of two parts: a group of words called the **stem**, and a list of possible answers called the **options**. The stem can either be in the form of a question that you must answer or a statement that you must complete. There are usually five options in a good multiple choice question.

_____ 1. Suppose that both the prices and total sales of hockey pucks declines. This can be described in terms of supply and demand by:] **STEM**

(a) A decrease in demand for hockey pucks.
(b) An increase in demand for hockey pucks.
(c) An increase in supply of hockey pucks.
(d) A decrease in supply of hockey pucks.
(e) None of the above.

OPTIONS

The directions to most multiple choice tests will tell you to select the *best* option. This means there may be more than one option that might logically answer the question or complete the statement. By making you select the *best* one, the professor is not testing whether or not you studied the material, but how thoroughly you understand it.

The biggest mistake students make with a multiple choice question is hurrying through the stem so they can get to the options. The problem is that if you don't understand the stem, you don't know what the question is asking. And if you don't know what the question is asking, you probably won't select the correct option. So, the first rule in answering a multiple choice question is to make sure that you understand the stem before you read the options.

You may need to read the stem more than once. You may need to put it in your own words. It may help to shorten it, or it might be possible for you to substitute a concrete example in place of an abstract term. For example, in the following question, the term "sex offenses" is rather broad and general. You may want to think of a concrete example of a sex offense, such as "rape," and substitute the word "rape" into the stem.

_____ 2. In studying the problem of sex offenses, it is well to remember that:

(a) Many laws regarding sex offenses result in undue punishment of the minor deviate;
(b) There are thousands of sex fiends at large;
(c) Sex offenders are usually recidivists;
(d) The sex offender progresses to more serious types of sex crimes;
(e) These individuals are oversexed.

If, after working with the stem, you still can't understand it, ask your instructor for assistance. According to Walter Pauk, a study skills specialist, it's reasonable for students taking tests to ask their instructors such questions as, "Would you tell me what this word means? Or, should we assume such and such in this question? Or, when you consider this question from this point of view, the answer would be this, but under such and such condition the answer would be this—which do you want?"

When you feel that you have a pretty good understanding of the stem, go ahead and read the options. Be sure to read all of the options before selecting your answer. Remember, you're not just looking for a good answer—you're looking for the best one.

As you work through the test, answer the questions that you know the answers to first; skip the ones you don't know. Put a check (✓) in the margin next to the questions you've answered and then DO NOT RETURN TO THEM. Your initial impressions at the beginning of the test when you're fresh and alert are your best ones. More times than not, changing an answer later in the test means changing from the correct option to an incorrect one. You had reasons to pick that option to begin with, so don't change it.

After you answer the questions that you know the answers to, go back and answer the ones that you skipped. This time, instead of looking for the right answer, try to eliminate the options that you're sure are wrong. Every time you can eliminate just one option, you've increased your chances 20% of answering the question correctly. If you can eliminate two options, you have a one-in-three chance of answering the question correctly. And if you can eliminate three options, you have a 50-50 chance of selecting the correct answer. Those odds are in your favor.

How do you go about eliminating options? There are a number of hints you can use. One good reason for crossing off an option is if there's something silly or suspicious about it. For example, you could probably cross off options A and B in this economics question:

_____ 3. In *Richard III* by William Shakespeare, Richard III is made to say, "A horse, a horse, my kingdom for a horse." An economist hearing this would say:

(a) England must have been pretty poor off, to be swapped for a horse.
(b) If he would have traded England for a horse, then he certainly would have traded England for a big diamond.
(c) The marginal utility of a horse to Richard III at that moment was more than the total utility of the Kingdom of England.

(d) All of the above.
(e) None of the above.

Once you eliminate options A and B, you can also eliminate option D.

You can also eliminate options that have emotional words, weird words, or obvious slang in them. For example, you probably wouldn't want to consider option B in question #2 as a viable option. It's doubtful that your professor ever discussed "sex fiends" in his lecture. If B was the correct option, the term "sex offenders" would probably have been used.

Also, keep your eyes open for options that don't match the stem. Referring again to question #2, option E doesn't make any sense. The stem is talking about sex *offenses*. It doesn't follow that the correct option would begin with the words "These individuals . . . " What individuals is the option referring to? There were no individuals mentioned in the stem.

Another hint for eliminating options is to eliminate statements with **100% words** in them. 100% words are words that refer to time or number—100% (or 0%) of the time, or 100% (or 0%) of the cases. Examples of 100% words are: all, always, everybody, everyone, never, none, no, without fail, invariably, and without exception. The reason you want to avoid options with 100% words in them is because not that many things in the world happen with that degree of consistency. All you have to do is find one exception to the statement and you've proven it false. For example, in the following question, you could probably eliminate options D and E. It's unlikely that two brothers are *never* treated in a similar way, or that they will *always* be lifelong friends.

_____ 4. The example of the two brothers reared in the same family and cultural environment given in the text points out that they:

(a) Would have essentially the same basic attitudes in life;
(b) Would both be attracted to the same types of people;
(c) May show very different needs for personal recognition from those around them;
(d) Are never treated in a similar way;
(e) Will always be lifelong friends.

A word of caution here. Don't automatically cross off an option solely on the basis of its containing a 100% word. Make sure that besides having a 100% word in it, the statement doesn't make sense. Definitions of words, formulas, and statements in the fields of mathematics and science often contain 100% words and are true. (2+2 always equals 4.)

On the other hand, you probably wouldn't want to immediately eliminate options A and C in question #4 because they each contain what are called **weak** words. Weak words generally indicate that the option is a true one (not that it's the right answer, only that it's a true statement). Weak words *qualify* the statement they're in—they allow an exception to the rule. You can be a lot more sure of making a true statement if you use a weak word in it, such as generally, usually, most, many, many times, often, sometimes, probably, essentially, may, maybe, might, could, or perhaps.

Sometimes the last option in a multiple choice question will say "none of the above." There are certain times when this option can be eliminated. For example, if there's a specific name, date, or place mentioned in the stem, the answer is probably not "none of the above." That's because your instructor has taught you something and wants to see if you can make the connection between what's mentioned in the stem and what it is he taught you. The correct answer is probably in one of the first four options. (See questions #1 and #5.)

_____ 5. In Richmond, Virginia:

(a) School busing is presently occurring to achieve metropolitan area-wide school balancing.
(b) The opposition to busing is coming primarily from inner city residents.
(c) Political leaders have remained neutral over the busing issue.
(d) The United States Supreme Court has ruled busing proposals unconstitutional.
(e) None of the above.

Another reason to eliminate options is if there are two noticeably similar ones. In that case, one option can't be better than the other, so you can cross them both off. In the following example, options B and E are almost identical, so you could eliminate them.

_____ 6. Which of the following statements *least* accurately describes a characteristic of labeling?

(a) Overly rigid labeling leads to stereotyping.
(b) We use labeling as an efficient categorization of similar things.
(c) Labels are often imprecise, or poorly defined.
(d) The inherent categorizing function of labels points up the fact that labels are rarely misleading.
(e) Labeling is a means of grouping similar kinds of things.

There's another way of approaching question #6. Go back and read each of the options and write T or F after each one depending on whether you think the statement is true or false. You should end up with four T's and one F. Your answer has to be the statement that's false because it's the one that's different.

A few final pieces of advice. First, if you're having trouble finding the right answer, try matching one of the words in the stem with the same word or a similar word in an option. In question #7, for example, you could match the word "gypsy" in the stem with "coloration" in option A.

_____ 7. The gypsy butterfly is characterized by its ability to:

(a) Make rapid changes in coloration.
(b) Stabilize large colonies.
(c) Confine itself to a relatively limited geographic area.
(d) Differentiate scents.

Second, if you're down to two options and you can't decide between them, go with the one that's more general rather than the one that's more specific.

_____ 8. Sagendorf's research led him to what conclusion regarding human learning?

(a) The idea that the learning ability of individuals is definitely influenced by their physical condition.
(b) The idea that either extreme tiredness, or ill health can diminish one's ability to learn.
(c) The idea that learning is not affected by the physical condition of the learners.
(d) All of the above are correct.

Third, sometimes a professor will give the correct answer away through his choice of verbs. In the following question, the correct option has to be A because of the verb "will." The other options all say "should" or "ought to."

_____ 9. Which of the following is a positive economic statement?

(a) Reagan's economic policies will increase both the inflation and the unemployment rates.
(b) The President should consider the student's position in making economic policy.
(c) National defense ought to be the prime concern when Congress votes on the new budget.
(d) The President should allocate more funds to the poor.

Fourth, don't be intimidated by lengthy stems or lengthy options. Read through them and do your best to understand them. Because it takes more words to write a true statement, many times the longest option in a multiple choice question is the best one.

Fifth, if you're trying to choose between two seemingly good options and in one of the options there's a word you don't know, go with the option where the words are all familiar to you. (That's assuming you've studied. If you haven't studied, you're on your own!)

And last, if you're guessing at the answer and all of the options are numbers, it would probably be better to avoid the highest and the lowest numbers. In the following example, you could probably eliminate options A and E. (This, of course, does not hold true on a math test.)

_____ 10. There is an average of one probation officer for every:

(a) 15
(b) 30
(c) 60
(d) 90
(e) 135

children coming to the attention of the courts.

PRACTICE TRUE-FALSE QUESTIONS

Directions: Using the test-taking skills you've developed so far, answer the following true-false questions. Write "T" in the space if the answer is true and "F" if the answer is false.

_____ 1. By definition, all subcultures are also counter-cultures.

_____ 2. Ethnocentrism frequently involves placing a value on one's own culture at the expense of other cultures.

_____ 3. The truly great scientific discoveries occurred only once in human history.

_____ 4. To date there is no evidence whatsoever that any animal is capable of understanding symbols.

_____ 5. The really important norms in a society are always found in written law with very specific punishments.

_____ 6. A woman's costume jewelry would be considered part of a society's material culture.

_____ 7. Sociologists and anthropologists use the terms *culture* and *society* interchangeably.

_____ 8. Although cultures of the world present much diversity, there are a few basic cultural "universals."

_____ 9. Magazines dealing with unsophisticated topics, such as movie or confession magazines, would not be considered to be legitimate culture.

_____ 10. Cultures are characterized by a high degree of interrelatedness and interdependency among cultural traits and components.

PRACTICE MULTIPLE CHOICE QUESTIONS: SOCIOLOGY

Directions: Eliminate as many options as possible, using the techniques you've learned thus far. Don't try to find the correct answer, just eliminate the options that you think are *not* correct. Be able to defend your choices.

_____ 1. Modern theories of punishment for crime say that:
(a) retribution is a morally defensible notion in Western society;
(b) if the punishment is severe enough, an individual will desist from committing a crime;
(c) no punishment can be too severe for certain crimes;
(d) all punishment should be eliminated;
(e) punishment should be aimed at rehabilitation.

_____ 2. At the time of the arrest of a juvenile, the primary treatment goal is:
(a) to pick up juveniles on suspicion in high delinquency areas so as to protect the public;
(b) to teach the child a lesson by giving him a sample of what it is like to be a criminal;
(c) police handling that will not further damage juvenile attitudes toward the law;
(d) getting the child before a judge so he will get court experience;
(e) to fingerprint him so that he will be on record.

_____ 3. Our modern legal concept of juvenile delinquency:
(a) is very progressive and is almost universally accepted;
(b) is good because it is strict, and one delinquent act usually leads to more;
(c) includes all restless teen-agers who make up our present serious delinquency problem;
(d) sometimes, unfortunately, brings to official attention youthful behavior that might be handled better in more informal ways;
(e) does not include youthful criminals.

_____ 4. Probation, as a method of delinquency control, is:
(a) very expensive compared with other methods;
(b) unpopular with a delinquent because of the stigmatization that goes along with it;
(c) primarily designed for the non-habitual offender;
(d) successful only if there is a good judge on the bench;
(e) less desirable than an institution because it does not protect the community.

_____ 5. Professor McGee likened studying a phenomenon from a different disciplinary viewpoint to:
(a) an inability to be decisive;
(b) switching from guesswork to science;
(c) maintaining a broad theoretical base;
(d) putting on a different set of eyeglasses;
(e) looking backwards through a telescope.

_____ 6. A sociologist, working for a company that constructs apartments and researches the effects of space on the individual, would be considered a/an:
(a) basic-science sociologist;
(b) traitor to his discipline;
(c) Marxist;
(d) applied sociologist;
(e) follower of William Sumner.

_____ 7. Social problems that flow from changing aspirations are:
(a) essentially the same as those that come from society's failure to transmit values;
(b) often a normal and healthy accompaniment of change;
(c) usually moral problems;
(d) never a threat to the whole society;
(e) the constructive kind in that they never produce conflict.

_____ 8. The Supreme Court decision in the Escobedo case:

(a) found Escobedo innocent of the crime;
(b) aroused little public interest;
(c) insures the poor person the right to counsel if he can't afford one;
(d) permitted consultation between a suspect and his lawyer prior to actual arrest;
(e) involved illegal search and seizure.

_____ 9. The question of adequate housing for blacks in this country:

(a) has always been an important social problem;
(b) is at present a moral problem and not a social problem;
(c) was a serious social problem even when blacks were trapped in the lowest economic and cultural levels;
(d) became a social problem as the educational and economic conditions of the black population improved;
(e) should be worked out by each individual neighborhood.

_____ 10. From the discussion in class on the uniqueness of the American experience, it is possible to conclude:

(a) America has little, if anything, to offer the new nations of the world;
(b) America's cultural heritage was the single most important reason for its subsequent development;
(c) American democracy is the only real alternative for many of the developing nations;
(d) all of the above;
(e) none of the above.

THE THREE LEVELS OF READING COMPREHENSION: LITERAL, INTERPRETIVE, AND APPLICATIVE

Students sometimes complain that there were questions on their test that didn't come from the lecture or from the reading assignments. While this might actually occur, more likely what happened is that the student read and studied the material at one level of comprehension while the professor tested at the two more advanced levels. The answers *were* in the text—the student just didn't know where to find them. By learning to read at all three levels of comprehension, you'll be able to match the way you study for your tests with the types of questions that appear on them.

The most basic, or lowest, level of reading comprehension is the **literal level**. At this level, the author states the facts—names, dates, locations, and definitions—clearly and directly. There's no hidden meaning; the reader can take what's presented at face value. Most people read at this level because it's easy and doesn't require any heavy thinking. However, the level of reading you use should be dependent upon the kind of material you're reading. There are times when the literal level of reading is the most appropriate one to use. For instance, cookbooks and how-to-do-it manuals should be read at the literal level. On tests, literal questions usually come word-for-word from the text. Most college students are good at answering literal questions because those were the kinds of questions they were asked in high school.

The second level of reading comprehension is the **interpretive level**. Here the author disguises what he's saying to some extent. To discern his message, you must be able to read between the lines. To read at the interpretive level you must first understand the material (the facts) at the literal level and then draw conclusions from those facts. This requires some independent thinking. Many students have not been taught to think independently and are not comfortable doing it. A good way to find out if you read well at the interpretive level is to examine your feelings about reading poetry. If you dislike poetry and have a difficult time understanding it, you probably were never taught to read at the interpretive level. If you enjoy poems and usually understand them, you probably have developed the skill of reading at the interpretive level. On tests, interpretive questions usually present a piece of knowledge and then ask you to draw a conclusion or make an inference from it. You can't pull the correct answer word-for-word from the text because it's not there.

The third level of reading comprehension is the **applicative level**. Here the reader must take the information the author presents at the literal level and apply it to an entirely different situation. This calls for a higher level of comprehension and requires the greatest amount of insight. An applicative question on a test usually sets up a hypothetical situation and then asks what you'd do in that situation based on your newly found knowledge. Engineering, psychology, biology, and economics courses use applicative questions on their tests.

To do well in college, you must be able to deal with material at all three levels of comprehension. If you read and study only at the literal level, you may be able to memorize the forty facts that appear in a chapter of your history textbook, but you'll have trouble on a test if you don't know how those ideas relate to one another. Also, you may have trouble determining the importance of the ideas. When you read only at the literal level, you miss important transitional clues that tell you the value of the ideas.

There are several things that will help you learn to read at the interpretive and applicative levels. First, make a conscious effort to increase your vocabulary. Second, learn the meanings of signal words and transitional clues. And third, play around with ideas as you're studying. Put them in a different order, paraphrase them, and tell them to other people.

The following exercises will help you develop your interpretive and applicative reading skills.

LITTLE RED RIDING HOOD EXERCISE

There are several versions of the fairy tale Little Red Riding Hood. Use the following version to base your answers on:

LRRH's mother asked her to take a basketful of goodies to her sick grandmother. On her way to grandma's house, LRRH met a wolf in the woods. He asked where she was going and she told him. He told her there was a short-cut to grandma's house (which was actually a longer way) and she took it. Meanwhile, the wolf took the shorter way, tied grandma up and put her in the closet. Then he put on one of grandma's nightgowns and night hats and crawled into bed. When LRRH arrived, she looked at "grandma" and said, "My, grandma, what big eyes you have... (nose, ears, teeth, etc.) The wolf said, "The better to eat you with my dear..." and jumped out of bed. Luckily, a woodsman was passing by the cottage, heard LRRH scream, and came in and killed the wolf. (This exercise courtesy of Dr. John Childrey, Florida Atlantic University.)

LEVEL I—What did the author say? Check two.

_____ A. Red Riding Hood met a wolf in the woods.
_____ B. Red Riding Hood visited her aunt.
_____ C. Red Riding Hood recognized the wolf immediately upon entering Grandma's house.
_____ D. The woodsman killed the wolf.

LEVEL II—What did the author mean? Check two.

_____ A. The wolf only wanted the goodies meant for Grandma.
_____ B. The wolf appeared a lot like Red Riding Hood's grandmother.
_____ C. Red Riding Hood was a *naive* little girl.
_____ D. Red Riding Hood was a *trusting* little girl.

LEVEL III—How can we use the meaning? Check two.

_____ A. Don't walk in the woods alone.
_____ B. Don't speak to strangers.
_____ C. Look more carefully at sick grandmothers.
_____ D. All's well that ends well.
_____ E. Don't send a little girl to do a nurse's job.

THE ROAD NOT TAKEN by Robert Frost

(1)
Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

(2)
Then too, the other, just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really about the same.

(3)
And both that morning equally lay
In leaves no step had trodden black.
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.

(4)
I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I—
took the one less traveled by,
And that has made all the difference.

A. Answer the following questions at the literal level of comprehension.

1. How many roads came together? _____
2. What was the color of the wood where the roads came together? _____
3. Why was the poet sorry? _____
4. How far down the paths could the poet see? _____
5. How did the poet describe the path he took? _____
6. How did the passing of other people affect the path? _____
7. What time of the day was it? _____
8. What color do leaves sometimes get when they are stepped upon? _____
9. "Way leads on to ? " according to the poet? _____
10. What did the poet doubt he should ever do? _____
11. How far into the future does he see the retelling of the story? _____
12. How does the poet think he will recall the telling of this story? _____
13. The poet took which road? _____

B. Use your interpretive skills to answer the following questions.

1. What do you think the author means by roads? Could the roads represent something else? If so, what?

2. Besides looking down the two roads, what else could the poet be looking at, or into?

3. Why do you think the poet chose the less traveled path? Would you have?

4. Why do you think the time of the day is important/ or not important? Could it symbolize something else?

5. Why do you think the poet will be recalling the story with a sigh?

C. Answer the following questions at the applicative level of comprehension.

1. What advice do you think the poet gives?

2. What does he mean by the last line: "And that has made all the difference"?

3. If the roads meant decisions, what do you think might be the occupations of people who travel the "more traveled road" and the "less traveled road"?

4. In what way are the decisions made in the "morning of your life" the most irrevocable (the hardest to go back and change)?

ANSWERING THE THREE LEVELS OF TEST QUESTIONS

Directions: The following six passages are from an introductory psychology textbook. The questions after the first two passages are at the *literal* level of reading comprehension. The questions after the third and fourth passages are *interpretive* questions, and the questions from the fifth and sixth passages are at the *applicative* level of comprehension.

PASSAGE 1: LITERAL

Through a series of complicated biochemical and surgical experiments that continued through the 1940s and 1950s, Selye gave a precise physiological meaning to the concept of stress. Some stress is an inevitable part of life, and most organisms cope with it successfully. But excessive stress, Selye found, causes reactions in the body, primarily in the adrenal and nervous systems, that can be harmful. He called these systemic responses to continuous nonspecific, noxious stimuli the general adaptation syndrome (GAS). The GAS occurs in three stages. Stage 1 is an alarm reaction in which symptoms of vascular and nervous depressions are followed by ACTH release. During stage 2 the animal shows increased resistance to the specific stressor and decreased resistance to other stressors. Stage 3 is characterized by exhaustion; the acquired adaptation is no longer maintained. If strong stress continues long enough, the animal may develop a "disease of adaptation" or even die.

_____ 1. Selye's General Adaptation Syndrome is a three-fold reaction which includes:

(a) warm-up, excitement and peaking, relaxation.
(b) exhaustion, alarm, decreased resistance to specific stressor and increased resistance to other stressors.
(c) excitement, coping and clarity, relaxation.
(d) alarm, increased resistance to specific stressor and decreased resistance to other stressors, exhaustion.

PASSAGE 2: LITERAL

One DEFINITION of anxiety is a state of apprehension or uneasiness concerning some uncertain event. As a subjective sensation, anxiety is similar to fear, but it tends to be less sharply focused. A person may fear a large, unfriendly-looking dog running toward him, or he may be anxious about his physical safety whenever he ventures into the street. Anxiety plays an important part in neuroses, as explained in Unit 13. Often, a chronically anxious person is one with a history of stressful experiences that he has not been able to predict or control.

_____ 2. Which of the following terms could best be described as "a state of uneasiness or apprehension concerning some uncertain event"?

(a) stress
(b) ACTH
(c) General adaptation syndrome
(d) anxiety

PASSAGE 3: INTERPRETIVE

INVESTIGATOR: H. Hyden
SOURCE: "The Question of a Molecular Basis for the Memory Trace"
DATE: 1970
LOCATION: Institute of Neurobiology, Univ. of Goteborg, Sweden
SUBJECTS: Rats
MATERIALS: Narrow glass tube; 45 degree tightwire

Like people, rats are usually right-handed or left-handed; when they use their paws in complex movements, they prefer to use one paw or the other. In one experiment, right-handed rats were trained to retrieve food from far down a *narrow glass tube*. Training took place over a period of days, with each rat receiving two training sessions of twenty-five minutes each per day. After five or six days, the rat

could readily retrieve the food from the glass, quickly and smoothly, with its initially "nonpreferred" left paw. At this point, the rats were killed and their brains analyzed for chemical changes. It was found that there were increases in the amount of RNA per cell on the learning (right) side of the brain cortex surface that corresponds to the left hand. This increase was relative to the amount of RNA present in control rats whose brain cells were analyzed on the first or second day of training, before the response had been learned well. The increase was also relative to the same rats' cells on the other side of the brain, which had not received training.

_____ 3. The results of this study allow us to infer that:

(a) learning may be improved by ingesting the appropriate chemicals.
(b) learning efficiency is dependent upon the amount of RNA already present in the brain.
(c) right or left handedness is a function of the relative amounts of RNA in each brain hemisphere.
(d) learning produces chemical changes in the brain.

PASSAGE 4: INTERPRETIVE

Perhaps the most dramatic demonstration of the notion that memories stay in our brains forever was provided by a brain surgeon who has performed hundreds of operations to reduce the severity of epileptic seizures. Penfield's technique involves exposing the brain while the patient is under a local anesthetic, then probing certain brain areas with an electrified needle or electrode (tiny currents). Probing the temporal lobe of the patient frequently elicited what appeared to be old memories. Here is the actual verbal report of a patient at that point during such an operation: "There was a piano over there and someone playing. I could hear the song, you know . . . someone is speaking to another. He mentioned a name, but I could not understand it. . . It was like a dream . . . Yes. "Oh Marie, Oh Marie!" Someone is singing it . . . Something brings back a memory. I can see Seven-Up Bottling Company—

When the results of electric stimulation of the temporal lobe were first reported, speculation was rampant that all of a person's experiences might be stored forever in his brain. It should be pointed out, however, that dramatic "memories" are also dredged up by dreams, hypnosis, rumors, and excitement-hungry people and frequently they have little to do with reality. It isn't clear that the experiences evoked by temporal lobe stimulation are valid memories or that the sensations evoked are samples of a complete lifetime record.

_____ 4. Penfield's studies of recall during open-brain operations tend to imply that:

(a) information stored in the brain is permanent.
(b) much of what we forget is repressed.
(c) memories are organized into categories.
(d) the two-stage hypothesis is true.

PASSAGE 5: APPLICATIVE

Before Ebbinghaus began to study memory processes systematically, the common explanation of forgetting was the leaky-bucket theory: memory is like a hole-riddled bucket from which information gradually and steadily flows into oblivion. The trouble with this theory is that it is not really an explanation—it merely describes the observation that memories seem to disappear as time goes on.

The interference hypothesis states that forgetting occurs because memories interfere with each other. For example, while visiting Spain, an American tourist who's conversant in French tries to master some basic Spanish phrases—it's a breeze. By afternoon he anticipates the Spanish social scene with confidence. That evening, he's in agony. Each time he tries to use his newly acquired Spanish, French phrases clutter his brain. He can't say *mi cara* when *ma cherie* interferes. On a later tour of France, the situation is reversed. When he reaches for the once familiar French, Spanish phrases interfere. This unfortunate tourist is suffering from both *retroactive interference*, in which new memories block out the old ones, and *proactive interference*, in which older knowledge gets in the way of the new. (Pg. 431)

_____ 5. Your teacher advised you to go to bed immediately after studying so that you will remember the material for a test you are taking in the morning. This procedure will prevent:

(a) proactive interference
(b) rehearsal
(c) retroactive interference
(d) the tip of the tongue phenomenon

PASSAGE 6: APPLICATIVE

Three different groups of high-school students listened to a speaker on a radio program argue for leniency in the treatment of criminals. The content of the discussion was identical, but each speaker was introduced to a group in a different way, and he played his role accordingly. For the first group he was a highly trained judge from a juvenile court ("positive credibility"). To the second group he was described as a member of the studio audience chosen at random ("neutral credibility"). To the third group he was portrayed as an obnoxious character, a former juvenile delinquent currently free on bail after being arrested for dope peddling ("low credibility").

A questionnaire assessing opinions on treatment of criminals was administered to all students immediately after the program and again three weeks later. (Actually, alternate forms of the questionnaire were used, so that its uniformity would not be apparent.) Each student was asked to check on a five-point scale the extent to which he agreed with a variety of statements ranging from the extremely lenient "Punishment is never justified" to the extremely harsh "Intense physical pain is the only way to make people fear the law." Information was also collected on how the students evaluated the program itself and on how well each of them could remember specific facts included in the presentation.

Before listening to the radio program, the three groups did not differ appreciably in their attitudes about juvenile delinquency. Immediately after the program, the leniency attitude that conformed to the speaker's point of view was found to be greatest for the first ("positive credibility") group and least for the third ("low credibility") group. The first group responded most favorably to the program, and the third group most negatively, with the opinions of the second group falling between the two extremes.

However, when the questionnaire was administered again three weeks later there were no longer any major differences in the leniency of the attitudes of the three groups. Rather, there was a leveling effect. That is, the third group, which earlier had a negative view of the program now expressed opinions that did not differ significantly from those of the first group, whose more positive opinions were also moderated. The experimenters concluded that the subjects had forgotten their original assessment of the source of information. The tendency for credibility effects to diminish over time is known as the *sleeper effect*. (Pg 157)

_____ 6. An example of the sleeper effect: You read an ad for a new cereal.

(a) You believe the claims but refuse to buy it.
(b) You seriously doubt the claims. Nevertheless two weeks later you buy a box of it.
(c) You seriously doubt the claims. Nevertheless you immediately go out to buy a box of it.
(d) You believe the claims and therefore buy a box two weeks later.

(The passages used in this section came from *The Study of Psychology* by Joseph Rubinstein and are used with the permission of the Wadsworth Publishing Company, Belmont, California.)

HOW TO HANDLE AN ORAL EXAM

What Is An Oral Exam?

An oral exam is a test where you meet individually with your instructor in his office. He'll ask you a series of questions—out loud—and you are to answer—out loud. Depending on the instructor, you may be able to refer to your notes during the test. Oral tests usually last from five to thirty minutes.

Who Should Take An Oral Exam?

Students who do well on oral exams are generally articulate and able to express themselves well. They are usually friendly and outgoing and like to talk.

How Should You Decide Whether To Take An Oral Exam?

If the regular exams for a course are given in the evening and you don't function well at that time, investigate the possibility of taking an oral test. Also, if you've tried taking an objective or an essay exam in the course and you don't think the results reflected how much you really knew, ask your instructor if he'll give you an oral exam. The advantage of an oral test is that you can give the answers in your own words—you aren't as restricted as you are with other types of tests.

How Should You Prepare For An Oral Exam?

First, read the printed material (the textbook, the workbook, class handouts) before each lecture and take notes on that material. Then take notes during the lecture and compare your lecture notes to the notes you took as you read. Resolve any conflicts in the information and be sure to note which information appeared in *both* locations.

Second, attend all of the help sessions. If you don't understand something, or if you disagree with something, this is the time to talk to your instructor. Remember—it's his job to make the concepts clear to you. If you don't ask questions, instructors will assume that you understand.

Third, obtain a copy of the test questions asked during oral exams in previous semesters. To do this, check with your school's exam file or ask the instructor himself. Most will be pleased that you're concerned. Review the exam. What does the instructor consider important?

Fourth, with all of the information you've gleaned from the help sessions, previous exams, and discussions with the instructor, review your notes. Mark the things that are most important, list questions that YOU would include in an exam, and answer those questions. If you really know the material, you can explain it to someone else. At first, you may need to refer to your notes, but prepare yourself to the point where you don't need to refer to them. See if you can find someone to listen to your answers. It's important that you practice *out loud*—not just in your head.

Fifth, if there's a sign up sheet available where you can choose the time you want to take the test, choose a time of day when you're at your peak.

What Should You Do When You Take An Oral Exam?

First, arrive a few minutes early so you'll have time to compose yourself. If it feels right, shake hands with the examiner. This will help to establish rapport with him and also give you confidence.

Second, when you hear the question, take a second to decide what you're going to say, then answer calmly and directly. If nothing comes to mind, it's perfectly all right to rephrase the question. You might say, "I'm not sure what you mean by that. Do you mean _____?" (and then put the question in your own words).

Third, it's usually perfectly all right to ask the instructor if he would like you to elaborate on your answer. Watch for nonverbal clues from the instructor indicating that he's satisfied with your answer or that he wants you to continue talking.

And fourth, be sure to thank your instructor for his time and trouble. It usually takes more time for an instructor to administer an oral test than it does to administer a written one. Besides, instructors who give oral tests usually really care about their students. They're doing you a favor by giving you practice speaking and thinking on your feet, which is a skill you'll need not just in college or on the job, but in every aspect of your life.

HOW TO HANDLE AN ESSAY EXAM

Most students dislike essay tests. That's probably because essays test *recall* (which involves retrieving the information from scratch) rather than *recognition* (which simply involves identifying the correct answer after it's shown to

you). Another reason people dislike essay tests is that for an essay test, unlike a multiple choice test, you can't learn half the material and hope to guess at the rest. You have to learn everything.

And besides learning all of the material, you must also understand it. You must know the main ideas in the course and be able to intelligently manipulate them. And you must be able to express yourself in writing. You need to be able to write clearly, succinctly, and under pressure.

Because essay tests are so time-consuming to grade, they're rarely administered in large enrollment courses. But professors of smaller classes give them, and the chances are good that at some point in your college career, you'll have to take an essay test. For this reason, it's important that you learn two things: how to study for an essay test, and what the rules are for writing a good essay answer.

PREPARING FOR AN ESSAY EXAM

There's one thing in your favor when it comes to taking an essay test. You know in advance almost exactly what the questions are going to be. Essay questions are always over the main points of the material. You can locate the main points by examining the lecture topics and the summaries at the ends of the chapters in your textbook. Let's say you've been studying the fall of the Roman Empire in your history class. Specifically, you've been studying the three main reasons why the Empire folded. The question that's most likely to be asked on the test is, "List and explain the three primary causes of the fall of the Roman Empire."

The task of predicting questions will be difficult only if you haven't been paying attention to what it is you were studying. That's why essay tests are good for you. They cause you to stop and synthesize what you've been studying. *So, rule #1 for taking an essay test is to predict the questions that are most likely to be asked and practice answering them.*

"Practice answering them" means literally taking out a sheet of paper, writing the potential question at the top of the page, and writing out an answer. After you've finished writing, go back and examine your answer from your professor's point of view. Did you answer the question thoroughly, or did you leave out something important? Did you write anything that shouldn't be there? Is your answer coherent?

You should spend about twenty minutes writing and another ten minutes editing until your answer is in a form that you think will satisfy your professor.

Most students are too lazy to write out sample questions and answers ahead of time. The alternative they face is to sweat out thinking of answers once the test has begun. The questions that you predict may not be worded exactly like the questions that appear on the test, but this exercise will put you way out in front of the people in your class who don't practice writing out answers.

TAKING AN ESSAY EXAM

You've studied, and now comes the moment of truth—the test itself. Upon receiving the test, the first thing you should do is carefully read the directions. If the directions tell you to answer three out of four questions, then decide which questions you're going to attempt. (A good essay test, by the way, will make you answer all four of the questions; otherwise, a student might earn a high score for having studied only three-fourths of the material.) Also, as you're previewing the test, notice how many points the questions are worth. If some questions are worth more than others, start with them, even if you know the answer better to one of the questions worth fewer points. The name of the game is to go where the points are.

Make a grocery list for each question

According to William Farquhar, an authority in the field of study skills, the most serious error that students make when answering essay questions is jumping in and starting to write without thinking about what they're going to say. Most of us can't write and think at the same time. Since a good essay answer requires both good thinking and good writing, it makes sense to perform these tasks in sequence, preferably with thinking occurring first.

This is where the idea of a grocery list comes in. As you think of the ideas you want to include in your answer, jot them down on the back of the test, at the bottom of your answer sheet, or in the margin of your paper. Number them, much as you would if you were compiling a list of things to pick up at the grocery store. Then, after you've completed your list, go back and check your ideas against the question. *If any of the items don't fit the question, cross them off.* You've just stopped yourself from making the biggest mistake students make in answering essay questions—that is, *not answering the question that is asked. So, rule #2 for writing an essay answer is to make a grocery list and check it against the question before you start to write.*

Do what the directions tell you to do

It's essential that you know the meanings of the various key words that appear most frequently in essay exam directions. If you're told to contrast two events, you won't want to mention any similarities between them in your answer. Likewise, if you're told to compare two events, you won't want to mention any differences.

College students often make the mistake of including their personal opinions in their essay answers. This stems, perhaps, from their high school days when their teachers encouraged them to start forming opinions. Some essay directions, such as choose, select, evaluate, justify, or criticize, *do* solicit the writer's feelings about the topic. It's wrong, though, to include your opinions if they aren't specifically called for. *Rule #3 for answering an essay question is to do what the directions tell you to do. Don't include your personal opinion unless it's asked for.*

Organize your answer

When you start to write, it's important that you present your ideas in a logical sequence. Fortunately, most essay answers can be written following the same format. Once you learn this format, all you need to do is adapt your content accordingly. By following an established system, you'll be able to write faster, and your professor will be able to find your ideas more easily.

The first sentence you write should be a rephrasing of the question into a statement. For example, if the question is "What are some of the problems a student can encounter when sitting in the back of the classroom?" your first sentence might be "Students can encounter numerous problems when they sit in the back of a classroom." Don't try to be fancy or to elaborate on that; simply restate the question. In your second sentence, state your organizational pattern and how many points you're going to cover in your answer. For example, "This paper will deal with four primary problems." The number of points in your grocery list will be the number of points in your answer. By stating how many points you're going to cover at the beginning of your paper, you'll show your professor that you're organized. Generally, the more points you include in your answer, the better, although you don't want to go overboard. In the example provided here, four points should be sufficient.

Your organization from here on is fairly simple. Devote one short paragraph to each of your ideas. Begin each paragraph with a number: first, second, third, and fourth. It's usually a good idea to put your strongest answer in the first paragraph, your second strongest answer in the second, and so on. Also, it's a good idea to underline the key words in your topic sentence. For example, you may write, "First, the biggest problem when sitting in the back of the classroom *is being distracted by students in front of you.*" Then, in two to four sentences, elaborate on what some of those distractions are. Give specific examples of some of the more common distractions.

When it's time to present your second point, start a new paragraph. "A second major problem you can run into when sitting in the back of a room *is not being able to see what the professor writes on the board.*" Then, in two to four sentences, elaborate on that idea. In a third paragraph, present your third point; in a fourth paragraph, your fourth point. Then stop. You're finished. You've answered the question. You don't need to summarize what you've written (unless you're an excellent writer and can do so without presenting any new ideas or personal opinions). Knowing how to write a good essay answer means knowing when to stop.

You may need to adjust this format depending on the nature of the question, but the basic principles—numbering your ideas, underlining your main points, and using specific examples to support your main points—should work.

A second common format for essay answers is comparison-contrast. If you're comparing two things, it's usually a good idea to devote one paragraph to describing the characteristics of the first item and a second paragraph to describing the characteristics of the second. The two-paragraph approach will also work when you're contrasting two phenomena. In that case, you'll describe the uniqueness of the first item in the first paragraph and the uniqueness of the second item in the second paragraph. You can use the signal word "on the other hand" as a transition between the two ideas.

So, rule #4 for writing an essay answer is to use a clear organizational pattern.

SOME SPECIFIC HINTS FOR WRITING AN ESSAY ANSWER

1. Write in short, simple sentences. Strive for clarity.
2. Use the technical vocabulary presented in the course. Show your professor that you've learned the terminology used in that field.
3. Don't change voice as you write. If you begin in the third person ("A student . . . he"), don't change midway through your answer to the second person ("you").

4. Avoid 100% words unless you're sure that's what you want to say. Watch out for statements like "Students always do better when they sit in the front of the classroom."
5. Don't clutch. Get in there, skim the test, make your grocery lists, and write your answers. You don't have time to panic or be nervous.
6. Always write something, even if you don't think you know the answer. You won't get any credit if you write nothing. If you run out of time and there's an answer you haven't started yet, at least write a grocery list—your professor may give you partial credit.
7. Don't deviate from your grocery list. Chances are, if you start adding ideas, you'll get off the track. Some students try to impress their instructors by throwing in extra ideas. This is called *padding* an answer, and it should be avoided. A padded answer contains information that doesn't belong. It's the mark of a student who's unsure of himself. If the question asks for a list of three things, don't write four in hopes that you'll get three out of the four right. Your professor doesn't want to have to sift through your answer and separate the ideas that should be there from the ones that shouldn't be. Stick to your grocery list!
8. As far as content is concerned, an essay test is not the time to be creative and spring new ideas on your professor. Write exactly what you learned in class and what you think your professor wants to hear.
9. Don't write personal excuses like "I ran out of time," or "I was absent the day we covered this," or "I've been sick and couldn't study." Nobody wants to hear those things, especially your professor. Also, if you want to get a good grade in a course, don't ever criticize a test. ("I don't think this is a fair question.")
10. Write neatly! One study on the relationship between handwriting and grades showed that papers with good handwriting scored an *entire letter grade higher* than papers with poor handwriting. It's a real chore to grade essay tests, so anything you can do to make your professor's job easier—like writing neatly—will be appreciated. Also, your handwriting is a reflection of you. Oftentimes students with more legible handwriting are more competent as well; students who don't know the answers (or the rules of spelling and grammar) sometimes write sloppily to try to hide their errors.
11. Watch out for questions that have several parts to them. Make sure you answer all the parts.
12. Take time at the end of the test to proofread your answers. You probably made some mistakes in spelling, word choice, and punctuation. Use this time to correct them.

WORDS THAT APPEAR MOST FREQUENTLY IN ESSAY EXAM DIRECTIONS

Analyze To dissect something or break it down into its different parts. To examine the relationships among the parts.

Choose To select freely and after consideration. To state a preference for. You'll usually need to defend your choice—that is, you'll need to back your choice up with specific examples and personal opinions.

Compare To examine the qualities of two things to discover the similarities between them.

Contrast To examine the qualities of two things to discover the differences between them.

Criticize To consider the merits and demerits of something and judge it accordingly. To evaluate. To give your judgement or opinion about something. When you criticize, you look at both the good and the bad. Constructive criticism means that you might make negative comments, but that you do so as feedback to help the other person improve or change his behavior. Criticism can be predominantly positive.

Define To set forth the meaning of (as a word).

Describe To write a detailed account or verbal picture. To tell everything you know about a subject (e.g. describe a barn).

Diagram To make a chart, graph, or drawing with labels to identify the key parts. May also need a written explanation of the parts.

Differentiate To find the differences between two things. See **contrast.**

Discuss To talk about. To tell everything you know about a subject. To investigate by reasoning or argument.

Enumerate	To specify one after another. To list.
Evaluate	To determine or fix the value of through careful appraisal and study. To state the good and the bad. To give your personal opinion.
Examine	To inspect closely. To investigate. To look at all the pieces (like what a doctor does when he examines a patient).
Explain	To take something that's difficult and put it in language that's more understandable. To give the reason for or cause of. To show the logical development of relationships. To tell specifics.
Identify	To know the personal or distinguishing characteristics of (e.g. to know someone well enough to pick him out of a lineup).
Interpret	To explain or tell the meaning of in understandable terms. To give your own feelings and personal opinions.
Justify	To defend. To explain why something is so or why you believe something is so. Must present your specific reasons for feeling the way you do.
List	To write items down in a numbered sequence. To enumerate.
Outline	To indicate the key features or different parts of (e.g. to outline your responsibilities). A condensed treatment of a particular subject using key words. A summary. A sketch.
Prove	To establish the truth or validity of by evidence or demonstration. See justify.
Review	To cover the main points succinctly. To condense a subject into a briefer form.
Select	See choose.
State	To express in words. Concentrate on main points rather than specific details.
Summarize	See review.
Trace	To set forth events step by step (e.g. to trace the history of the labor movement). Usually done in chronological order.

WORKSHEET: ESSAY EXAM DIRECTIONS

Directions: Match the following essay exam directions with their definitions. Items in the right hand column may be used more than once, or they may not be used at all.

_____ 1.	enumerate	(A)	tell all that you know
_____ 2.	criticize	(B)	review
_____ 3.	compare	(C)	show the similarities and differences
_____ 4.	contrast	(D)	list the main points and number them
_____ 5.	justify	(E)	make a chart, graph, or drawing and label the parts
_____ 6.	describe	(F)	show the differences
_____ 7.	define	(G)	tell the events in chronological order
_____ 8.	trace	(H)	defend your position or someone else's position by providing specific examples and personal opinions
_____ 9.	discuss	(I)	show the similarities
_____ 10.	summarize	(J)	break something down into its component parts and examine those parts
_____ 11.	diagram	(K)	a term that is often misused. Can mean to react constructively and favorably
_____ 12.	analyze	(L)	provide a formal meaning using exact, precise language

SAMPLE ESSAY ANSWER

Question: What are some of the problems students encounter when taking an essay test?

Grocery List:

1. *Assessing Time*
2. *Covering all Information*
3. *Addressing the Question Asked*
4. *Presenting Information in Logical Sequence (Organizing)*

Of the four major problems created by essay tests, the most troublesome one for most students is the assessment of time. Apportioning time among a number of questions so as to have an adequate amount in which to answer all questions is ***the*** *crucial factor which makes an essay test so much more difficult than a multiple choice test for many students.*

The ***second*** *problem of almost equal importance is covering all the information in the alloted time. An essay answer, no matter how well organized or carefully written, will fail if an adequate amount of information is not covered. The student needs to cover, if time allows, not only general principles but specific examples and/or details.*

The ***third*** *problem, intimately related to the first two, is the organizing of information in such a way that there is a logical pattern or sequence which is not too difficult for the instructor to follow. A student may wander from the subject, or smother his points, making it difficult for the grader to check off the required informational points. The pressure of time may make it hard for the inexperienced test-taker to organize properly.*

The ***fourth*** *problem is making sure that the student answers the question asked. Again, a well-written, well-organized essay answer may fail completely if it does not answer the question. In the pressure of writing, the student may overlook a specific request to contrast rather than compare; he may waste time doing both when only one is called for; he may list solutions instead of listing problems in a question such as the one before us.*

SAMPLE ESSAY ANSWER

Question: What are some solutions to the major problems students can encounter when taking an essay test?

The problems that essay tests pose for many students, especially those not experienced in writing, are numerous, but I will try to focus on five that I see as major problems and offer answers on how to overcome them.

The first and most pressing problem is time. *Allocating time adequately is one of the key factors in overcoming the problems of the essay. To apportion time, the student should read quickly through the entire test, making a rough estimate of the amount of time each question will take. (Some thoughtful instructors provide this, but even so, the student should still make his own assessment.) He may find that he knows a great deal more about one heavily weighted question than another, and will need to allocate ample time to cover* ***all*** *the information on the question he knows well, while leaving enough time to give some answer to the one he cannot cover as fully.*

The second problem is organizing the information. *If possible, some clearly identifiable pattern of organization should be chosen. If the answer lends itself to listing, then a 1) 2) 3) pattern which can be checked off quickly by the grader makes for easy reading and an appearance of control of the information. If contrast is called for, then clear statements should be used such as "opposed to this view" or "contrasted with that" or "unlike the preceding." This makes it clear to the grader that the student grasps the differences. In contrast, the student will use "similarly," "alike," etc. in comparison, and time sequence will also be set up so that it is easy to follow and check off.*

The third problem is making sure all the information is covered. *A well-organized answer will help solve this problem, for the experienced writer will jot down a check list of all information that should be included before he writes. These jottings will not only serve as a reminder of the points to be included, but can also reveal the organizational pattern that he should choose. In addition, an eye kept on the points-to-cover list will prevent the student from wandering too far from the information needed and will also aid in a quick listing if time begins to run out. A few quick phrases sketching in the rest of the information is better than nothing if time runs out.*

The fourth problem is making sure the answer is to the question asked. *Perhaps this should have been first, for it is probably the most important. The only solution I know to this problem is to read the question* ***very*** *carefully, several times and be sure that you do* ***precisely*** *what is asked for.*

The fifth problem is proofing. *Going back after the test is often impractical for some—try to leave a minute or two to proof each answer as you go.*

GRADING ESSAY ANSWERS

Directions: Assign grades to the following four essay answers. Be able to explain to each of the students why you assigned them their grade.

QUESTION: Contrast the way you read your textbooks now with the way you used to read them before learning the SQ3R.

STUDENT W

I used to read my textbooks very poorly before I learned about the SQ3R method of reading. I would always read the title of the book, but I would seldom know the author's name. From that point I would skip over everything in the book between the cover and the first page of the chapter. I would read the title of the chapter and then plunge directly into the text without any forethought about the subject. When I would come to illustrations, graphs, subtitles, etc., I would stop my reading and look them over. I would then proceed with my reading when I thought I had digested the additional information. I would continue reading in this same manner until I was either bored to death, or finished with the assignment. I seldom would take the time to answer any study questions. When I did I would almost always need to re-read sections of the material to find the answers.

After discovering the SQ3R method of reading I read my textbooks quite differently now.

If the textbook is new to me, I don't even open it until I have thought of some things I am already familiar with that relates to the subject. Then I read the title of the book and actually say the author's name because I remember it longer if I repeat it. I look at the date the book was published and then go to the table of contents. I skim the table of contents because that tells me what the book is about. If the book has a preface or an introduction, I read that too. From this point I go to the chapter itself. If there is a structured overview and/or an advanced organizer it is important to read that. I also skim the chapter and notice headings, subtitles, pictures or graphs that may be included. Next I skip to the end of the chapter and read the study questions. Those questions are important because now I have a purpose in reading the chapter—to find the answers to those questions. The answers are the important points to the look for in the chapter. When I finally start to read the text, I read without stopping to look at all the additional information in the chapter. That eliminates the stop and start action that I used to do before SQ3R. Now I am learning and studying at the same time. The way I read my textbooks after SQ3R is great contrast to the way I used to read them.

GRADE _____

STUDENT X

Prior to learning the SQ3R method of reading, I had many bad habits in reading textbooks. By contrasting my prior habits with those that I utilize now, I can see the advantages of the SQ3R method. First, I will describe my habits before I learned the SQ3R, then I will contrast these with the habits I now use since learning the SQ3R method.

Actually, the way I used to read texts wasn't too bad. However, what I learned from them wasn't much. Therefore, I knew I had to change some bad habits of mine. For instance, I wouldn't read subheadings, or headings for that matter, which in themselves tell the reader much about a chapter. I disregarded highlighted material and illustrations because I was lazy. Moverover, I rarely went over a chapter more than once, provided I didn't just skim it in the first place. The hardest part is simply concentration.

Nevertheless, after learning the SQ3R method, I now look at the title of the chapter and give some thought to it before I even read any of the headings, subheadings, or paragraphs. Secondly, I see if there are any structured overviews, behavioral objectives, advanced organizers, or a summary of the chapter. Each of these gives helpful information to what lies ahead in the reading. Sometimes I take a break here, but I usually like to get the reading done. As I read, I try to make up questions that I would anticipate being on the test. I answer these questions that I have formulated by highlighting much of the material. Once I have completed the required reading, I set it aside until about one week before the test, then I review.

Learning the SQ3R method is advantageous because it saves time, reviewing is easy, and in the long run retention of material for tests is better.

GRADE _____

STUDENT Y

There are two different ways to read a textbook. A good way using the SQ3R method and a bad way that does not use the SQ3R method.

The SQ3R method has five important parts: survey, question, read, recite, and review. To survey the chapter a student must look at the title, summary, chapter outline, titles and subtitles of paragraphs, pictures, captions and charts. This time the student allows for surveying introduces him/her to the important concepts in the chapter.

The second part (question) allows the student the chance to find out more information about these concepts by asking questions about them.

During the third part (read) is when the student answers these questions. He/she finds the answers when reading.

After reading the student should ***recite*** *and* ***review****. This allows the student to learn the new material by recall. Talking outloud is an aiding factor.*

The student who does not follow this method has a hard time learning because he does not follow these parts.

GRADE _____

QUESTION: Contrast the problems of the student who sits in front of the class with the problems of the student who sits in the back.

STUDENT Z

There are different reasons why students sit where they do. A student who sits in the front is one who wishes to let the instructor know he/she is part of that class. This person in front feels that being noticed in front can help their grade. I think this is very true, a teacher likes to see someone who is interested in what is going on and is more likely to give a "front person" a little more help when grades come out. These people in front tend to help themselves by not missing a key word and other things necessary for good grades and test scores.

I guess there are two types of people who sit in the back of class, first the most logical answer, some don't care. I think when a teacher looks to the back of a class and sees someone sleeping it will hurt their grade a great deal, also a teacher is more than likely not going to help someone who sleeps in his class. Then the other type of person who sits in the back would have to be someone who is shy and doesn't want to talk in class but is smart and knows what's going on just as well as the people in front do. This is a good kind of

student to be, in my mind anyway. They must be doing something right, they always seem to get the best test scores. The only thing is, not everyone can be the type of student they want to be. Some people must apply themselves more to get the same grade. For example, the person who must sit in front of the class and not miss a word to get his/her "A". Then we look to the back of the room and see the "shy thinkers" who contribute little in class but when test time roles around they are ready. This only leaves the students who don't care, if they don't, who does!

GRADE _____

SAMPLE TEST QUESTIONS

Directions: Write the letter of the *best* option in the space provided.

_____ 1. When an instructor schedules frequent tests in her classes, she's helping her students:
(a) find the main ideas
(b) improve their attitudes about the material
(c) review
(d) get rid of biases they may have about the material
(e) improve their attitudes about the course.

_____ 2. What type of questions are these sample test questions?
(a) objective
(b) comprehensive
(c) completion
(d) problem-solving
(e) subjective

_____ 3. The **halo effect**:
(a) can't happen on objective tests
(b) occurs when the grader knows whose paper he's grading
(c) means sometimes overlooking the mistakes of your favorite students
(d) means grading some papers rougher than others
(e) all of the above

_____ 4. The first thing you should do when taking a test is:
(a) do the hardest questions first
(b) do the questions that are worth the most number of points first
(c) skim the test
(d) start with the first question and work through the test in chronological order
(e) start with the easiest questions first to build your confidence

_____ 5. Question number three on this test (the halo effect) is an example of what kind of question?
(a) literal
(b) interpretive
(c) applicative

_____ 6. When you're told to *criticize* something in the directions of an essay question:
(a) you concentrate mainly on what needs improvement
(b) you look at both the good and the bad
(c) you can be as negative as you want to be
(d) you are predominately negative

_____ 7. You're an instructor of a course where you're teaching a lot of jargon. You want to design a test to see if your students have learned the jargon. Which would be the best type of test to administer?
(a) multiple choice
(b) oral
(c) essay
(d) fill-in-the-blank
(e) true-false

_____ 8. When a question on a test presents some information and asks you to draw conclusions about the information, what kind of test question is it?
(a) literal
(b) interpretive
(c) applicative

_____ 9. If the stem of a multiple choice question presents a hypothetical problem and asks you how you would solve it, at which level of comprehension is the question?

(a) literal
(b) interpretive
(c) applicative

_____ 10. In the sense that they both ask you to explain the ideas in your own words, essay tests are similar to what other kind of tests?

(a) oral
(b) multiple choice
(c) true-false
(d) fill-in-the-blank
(e) matching

_____ 11. Which of the following are NOT tests of recall? (more than one correct answer)

(a) multiple choice
(b) oral
(c) true-false
(d) fill-in-the-blank
(e) matching

_____ 12. What does the suggestion "don't change voice" mean when you're writing an essay answer?

(a) don't include your personal opinion
(b) don't change verb tense
(c) don't change your tone of writing
(d) don't change from one personal pronoun to another
(e) don't include personal dialogue in your answer

UNIT V

HOW TO IMPROVE YOUR WORD ATTACK SKILLS

INTRODUCTION TO THE UNIT

Studies show that the more words you know, the more successful you'll be in college. This stands to reason, since to do well on tests, you must go beyond simply "knowing" the ideas in a course—you must also be able to intelligently manipulate them. In order to manipulate ideas, we need access to a vast storehouse of words. We "think" in words; consequently, the number of words we know controls our ability to reason, to think, and to perform well on tests.

Not surprisingly, studies also show a high correlation between size of vocabulary and success in business (with success in business defined in terms of income.)

Since the size of your vocabulary affects both the ease with which you learn and the amount of income you'll earn later on, it makes sense for you to enroll in a vocabulary course while you're in college. You should also do as much recreational reading as you can. Seeing words in context is the best way to pick up their meanings, and if those contexts are ones that you select yourself, the acquisition of new words will be even easier.

Many people have a habit of skipping over words they don't know. Words contain information, and if you skip them, you'll lose some of that information. You were probably taught in elementary school that you should look up the words you don't know in a dictionary. But dictionaries are cumbersome to carry around, and you may not have one available every time you run across a new word. Also, some words have multiple meanings, and unless you have some idea of how the word is used to begin with, you won't know which of the definitions is correct. Dictionary skills *are* important, however, and you should never hesitate to use a dictionary—especially when you need a precise definition of a term.

In this unit, we'll propose two ways to attack unfamiliar words. The first is to investigate the words surrounding the new word to pick up clues to its meaning. This method is known as using "context clues." Many times you can determine a word's meaning by seeing how it's used in the sentence, by figuring out what part of speech it is, by looking at how the sentence is punctuated, or by looking at the sentences immediately preceding or following it. The first half of this unit contains exercises to help you develop skill in the use of context clues. It might be helpful for you to do some of these exercises with other students so that you can exchange ideas and hear how other people think.

A second way to determine the meaning of an unfamiliar term is to see if it looks like a word you already know. Or, see if it contains any word *parts*. Word parts are "pieces of words" that have the same meaning no matter what word they're connected to. Each word part you learn can unlock the meaning of many different words. For example, the word part "cide" means "to kill." So when you see the words *infanticide, suicide, insecticide, regicide, homicide, patricide, fratricide, herbicide, sororicide,* and *matricide*, you know that something is being killed.

Instead of memorizing long lists of words and their definitions, it makes more sense to learn some of the various Greek and Latin word parts and then apply that knowledge to new words as you run across them in context. The second half of this unit contains exercises to help you learn some of the more common Greek and Latin word parts.

UNIT OBJECTIVES

At the completion of this unit, you should be able to:

1. Figure out the meanings of twenty unknown words and explain which of the eleven methods for figuring out the meanings of unknown words you used.
2. Provide reasonable synonyms for unknown words in a list of sentences.
3. Explain the rules for adding prefixes, suffixes and roots to words.
4. Provide the English meanings when given 155 Greek and Latin word parts.
5. Provide the Greek or Latin word part when given 155 English words.
6. Answer a series of multiple choice test questions that give you an unfamiliar word in the stem. The unfamiliar word will contain one or more Greek or Latin word parts.

11 WAYS TO FIGURE OUT THE MEANINGS OF UNKNOWN WORDS

1. **Use personal experience or your knowledge of the world.**
   (a) We walked *warily* down the ice-covered steps of Heavilon Hall.
   (b) The basketball game was a *fiasco*, with our team scoring 21 points to their 104.
   (c) As she said goodnight after the prom, the boy she cared for most asked her to wear his fraternity pin. Her joy was *ineffable*.
   (d) At Thanksgiving and Christmas *indigent* families are fed by the Salvation Army.

2. **Look for a direct definition in the same sentence or in a nearby sentence.**
   (a) In Roman times a member of the nobility was called a *patrician*.
   (b) But the next period was the turbulent Pleistocene, punctuated by mammoth African *pluvials*, corresponding to the Ice Ages of the north. A pluvial was century after century of torrential rainfall.

3. **Look for examples which explain the unknown word through illustration. Examples are often introduced by such clue words as "for example," "for instance," "e.g.," "this," "these," "such as," "such," and "like."**
   (a) Girls on the average consistently do better on the test items involving *esthetic* response, such as matching colors and shapes and discriminating in pictures.
   (b) In the course of evolutionary development certain human organs have *atrophied*. The appendix, for example, has wasted away from disuse.

4. **Look for clues that indicate a contrast.**
   (a) Ed was talkative while Bill remained *taciturn*.
   (b) When the light brightens, the pupils of the eyes contract; when it grows darker, they *dilate*.
   (c) The *flaccid* condition of his body is unlike that of Jim, who now exercises daily, watches his diet, and has become thin and wiry.

5. **Be alert to punctuation clues. ( ) , , — —**
   (a) The *sorcerer*, a wizard of great reputation for villainy, gazed scornfully at his victim.
   (b) John's *recapitulation* (review of the major points on both sides through a brief summary) of the Watergate debate which finally concluded after three hectic days in civics class, was masterful.
   (c) He took it upon himself—yes, he *appropriated*—the entire responsibility for raising money for the class gift.

6. **Look for words of restatement such as "that is," "i.e.," "in other words," "that is to say," "to put it another way," "what this means is," or "which is to say."**
   (a) So, too, much stress has been placed on *psychosomatic* effects—the influence of psychic states (i.e. the mind) on the body and its processes.
   (b) Teaching can be studied as an independent behavior separated from considerations of *didactics*, that is, the science or art of teaching.

7. **See if the word looks like another word you know.**
   (a) The first golf game of the spring proved immediately how *flaccid* muscles can become during an idle winter.
   The word *flaccid* looks a lot like the word *flabby*; the two words, in fact, mean approximately the same thing.
   (b) A very high proportion of the thinking on these topics is *androcentric* (male-centered) in the same way as pre-Copernican thinking was *geo-centric*.
   The word part *centric* should remind you of the words *center* or *centered*. Geo-centric thinkers believed that the stars and planets revolved around the earth.

8. **Try to determine what part of speech it is.**
   (a) His *succinct* writing style made for difficult reading.
   Succinct is an adjective modifying "writing style." You should ask yourself "What kinds of writing styles are there?" You have a clue that this particular writing style is difficult for people to read, so *succinct* is either going to mean lengthy, compact, short, technical, or confusing.
   (b) The center made an *adroit* maneuver in handling the ball.
   The word *adroit* is an adjective modifying the word "maneuver." What kinds of maneuvers can people make when handling a ball? Fast? Slow? Dumb? Intelligent? Skillful? Unskillful?

9. **Break the word into its word parts.**

   (a) Novelists, poets, and battlefield buffs have been greatly intrigued by the *fratricidal* conflict during the Civil War when families divided over the issues.

   The word *fratricidal* can be broken down into two parts: *frater*, which means "brother," and *cide*, which means "to kill." Fratricidal conflict means that brothers were killing their own brothers.

   (b) It's no advantage to the species for the Mighty Hunter to return home safe and cool if he finds his son's been dropped on his head and his wife is dead of *hypothermia*.

   The word *hypothermia* is made up of two word parts: *hypo*, which means "under" or "not enough," and *thermia*, which means "heat." Hypothermia means that she died of exposure—she didn't have enough body heat.

10. **Look at the ending of the word.**

   (a) If a word is a noun and ends in "s" or "es," it indicates there's more than one.
   (b) An action word ending in "ed" tells you that the action happened in the past. (And that it's a verb.)
   (c) An action word ending in "ing" tells you that the action is happening now. (And that it's a verb.)
   (d) If a word ends in "ist," "er," "or," "ess," "ant," or "ee" there's a good chance that it's a person. (noun)
   (e) Words ending in "tion," "ness," "ment," "ship," "ance," "ence," and "ity," are usually nouns.
   (f) Words ending in "ly" are usually modifiers.
   (g) Words ending in "ize" and "ate" are often verbs.
   (h) Words ending in "less," "ous," "ful," "al," and "ic" are usually adjectives.

11. **Use the dictionary.**

   (a) The women had an in-depth discussion of *philately* that lasted well into the night. Their interest in the subject was so keen that they were unaware of the passage of time.
   (b) My friend is extremely *erudite*.

   In these examples the meanings of the unknown words cannot be ascertained through the use of context clues. If you need to know their meanings, you'll have to use a dictionary.

PRACTICE USING THE 11 WAYS TO FIGURE OUT THE MEANINGS OF UNKNOWN WORDS

Directions: Read the following sentences carefully and determine the meanings of the words that are in italics. Use a dictionary only as a last resort, or to check your answers.

1. The drinks were served, and small plates of appetizers—baby shrimp and balls of browned meat. The man in white demonstrated the use of chopsticks. The men who were *adept* gave guidance to those who weren't.

   What could the men who were *adept* do? _____

   What does *adept* mean? _____

2. They're family men, stable; *civil servants* mostly—tax examiners, principals of schools, and so on; men of minor authority.

   Which 2 of the 11 methods would you use to figure out the meaning of *civil servants*? _____

   _____

3. At about eleven thirty they went *en masse* to the checkroom to collect their hats.

   What does *en masse* mean? _____

   What context clues can you use? _____

4. The man in white gave him four bills, and one each to Mori and Yoshiko. Putting his billfold inside his jacket, he smiled at Tsuruko and *reprimanded* her: "You're a good girl, but in the future you should give a little more thought to your patrons' interests."

   Use your past experience. When do people get *reprimanded?* _____

   What part of speech is *reprimanded*? _____

   What does *reprimanded* mean? _____

5. The Burggarten with its pond and its Mozart monument, its lawns and walks and equestrian Emperor Franz, is near enough to the Vienna offices of *Reuters*, the international news agency, for correspondents and secretaries to bring their lunches there in the milder months of the year.

   What is *Reuters*? _____

6. During the preceding week or so, Beynon had received word several times that Liebermann had called and wanted him to call back. He hadn't done so, though usually a *punctilious* call-returner.

   What part of speech is *punctilious?* _____

   Using method #7, what word does *punctilious* look like? _____

   Can you insert the word you just wrote back into the original sentence and have it make sense? _____

7. "Did you ever hear of him? Neither did I. Neither did anyone. A complete *nonentity*."

   What does the word part *non* mean? _____

   What is a *nonentity*? _____

8. "How did you become Herr Busch the *affluent* salesman? That coat must have cost you more than I make in a year!"

   A synonym for *affluent* would be _____

9. Mengele shook his head *incredulously*. "I cannot believe," he said, "that that old fool—Rudel, I mean, not Liebermann—would write off so much money, and the Aryan destiny along with it, out of concern for the safety of six ordinary men."

   What does it mean if someone is *incredulous*? _____

   What part of speech is *incredulously*? _____

10. He let go of the lectern and stood straight, looked at them casually—a man offering a *hypothetical* problem, not a real one.

    Which of the 11 hints would best help you determine the meaning of *hypothetical*? _____

    _____

    What does *hypothetical* mean? _____

11. In our world information is power, and the machines that process information—from printing press to computer—have become instruments of power. The most *potent* of these is the device that can separate truth from falsehood.

    Potent means _____

    In what other context have you encountered the word *potent*? What else might you refer to as *potent*?

    _____

12. The apparatus is usually compact and *portable*, but considerable care is exercised in selecting and preparing the room in which the polygraph is to be used.

    Portable means _____

    Did you use word parts or context clues to determine its meaning? Describe the method you used.

    _____

13. While many polygraph examiners feel that they must persuade their subjects of the instrument's *infallibility*, there is at least one laboratory study which indicates that such dramatics make no measurable improvement in the accuracy of the test.

    Infallibility means _____

    The chief clue word in the sentence is: _____

14. One row of buttons is used to select one of the four modes in which the PSE can be operated. These are roughly *analogous* to the different power lenses that can be swung into position on a microscope, each providing an increasing degree of magnification.

    Analogous means _____

    Another word that looks like *analogous* is _____

15. The matter came out when I asked Hill if he had any doubts about the official explanation of what happened. He didn't answer directly but gave a long, *circumlocutious* reply saying, in effect, that Jack Ruby had denied the police the chance to present their evidence in court and settle the matter once and for all.

    A synonym for *circumlocutious* would be _____

    The chief clue words were _____

16. In his inaugural address, President Ford promised a new era of openness and candor. We can only hope that such openness and candor will extend *retroactively* to the assassination of President Kennedy and that our new president will order the investigation reopened.

    Retroactively means _____

    If your boss asks you if you'd like your new raise to be *retroactive* to the past year, what would your answer be?

    _____

17. Somewhere, in some television network vault, were the tapes and sound tracks and on them were the tiny, *inaudible* variations in voice frequency which could settle once and for all the question, "Did Oswald, acting alone, shoot and kill John F. Kennedy?"

    Inaudible means _____

    Clue word _____

    The opposite of *inaudible* would be _____

18. In Philadelphia, Lincoln boarded the last car of a New York to Washington train, accompanied by a railroad detective named Allan Pinkerton who had arranged for Lincoln to travel under a *pseudonym*.

A synonym for *pseudonym* would be _____

Name a group of people who use *pseudonyms*. _____

19. Thus, the precise *chronology* of events established by Zapruder's camera shows the wounding of Kennedy and Connally too separate in time to have been done by one bullet and too close together to have been accomplished by two successive shots from the Mannlisher-Carcano.

A synonym for *chronology* is _____

If you put things in *chronological* order, what do you do with them? _____

20. The policeman told Smith he specifically recalled *inscribing* his initials in the steel jacket of the bullet.

What word or words would fit in this sentence in place of *inscribing*? _____

21. The core of the commission's *dilemma* was this: whether to investigate the rumor or to ask Hoover about it?

Another word for *dilemma* is _____

22. Marina Oswald was not a United States citizen. She was admitted to the United States at the pleasure of the government. She could be *ejected* at its displeasure.

A synonym for *ejected* would be _____

23. His thoughts ran the *gamut* from tender concern, accompanied by remorse for the words that had driven Susan away the night before, to self-righteous pleasure in the comments he had felt justified in making.

What does *gamut* mean? _____

24. A reader must sometimes be especially *astute* in figuring out what an author means.

What part of speech is *astute*? _____

What does it mean? _____

25. Such writers are too *lethargic* to do all the hard work necessary to think and write clearly, *lucidly*.

Lethargic means _____

Lucidly means _____

26. For example, many writers during the Middle Ages were forced to hide their true beliefs by writing in one way what was really meant in another way. Such *devious* methods were required for fear that their new ideas would result in punishment for going against the prevailing church doctrine.

Devious means _____

Which is the chief clue word? _____

27. As a result the men with different and new ideas often used an *ambiguous* style which was acceptable to churchmen yet clearly understood by other "new" men of their day.

Ambiguous means _____

The word part *ambi* means _____

28. Having made one lie, he is *fain* to make more to maintain it.

A synonym for *fain* might be _____

29. A person can be rated as to the degree of his *affability*, which term can be paraphrased as "Is he friendly and at ease in talking with others?"

Affability means _____

30. As a cadet he had gained the quite unfounded reputation of being a *misogynist* by refusing invitations to tea parties, picnics and dances and announcing grandly that he "had no time for women."

Misogynist means _____

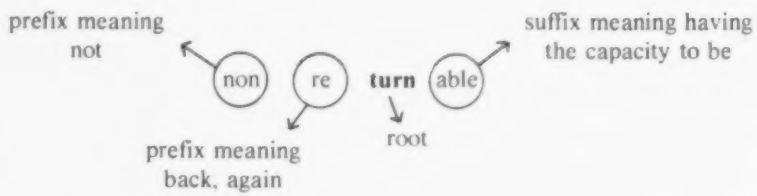
HOW TO DETERMINE THE MEANING OF AN UNFAMILIAR WORD BY USING WORD PARTS

Many times you can gain a clue to the meaning of an unfamiliar word by seeing if it contains any word parts that you do know. Take the meaning of the word part and apply it to the unfamiliar word. For example, if you know that *micro* means small, and you run across the word *microscale* in something that you're reading, you'll know that it's a very small scale—even if you've never seen the word *microscale* before. To begin a discussion of word parts, we need to define some terms:

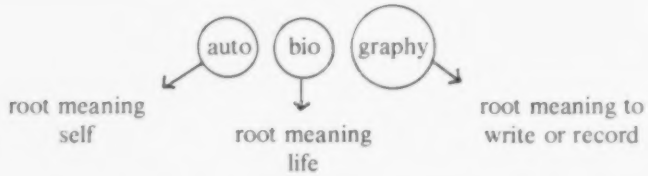
1. A **word** is a combination of letters that can stand alone and whose meaning has been agreed upon by a large group of people (e.g. "history").
2. A **root** is also a combination of letters whose meaning has been agreed upon by a large group of people. But unlike words, roots usually cannot stand alone (e.g. "dict").
3. A **word part** is any piece of a word. It can be a prefix, a root, a suffix, or an inflectional ending.
4. An **affix** is any piece of a word. It can be a prefix, a root, a suffix, or an inflectional ending.
5. A **prefix** is a letter or group of letters than can be attached to the beginning of a word in order to change its meaning.
6. A **suffix** is a letter or group of letters that can be attached to the end of a word to change its meaning.
7. **Inflection** is the change that words undergo to make such distinctions as case, gender, number, tense, person, mood, or voice. "I am," "you are," and "he is" are the inflectional forms of the verb "to be." The three most common inflectional endings are the letters "s," "ed," and "ing."
8. **Derivations** are the different forms of a word that can be made by adding various prefixes, suffixes, and inflectional endings. For example, the words *reject, rejecting, project, eject, subject, object, objection, subjection, projection, ejection, rejection, projector,* and *subjected* are some of the derivations which can be formed from the root "ject."

There are several rules you should know when dealing with words and word parts. Knowing these rules will help you take words apart and put them back together again.

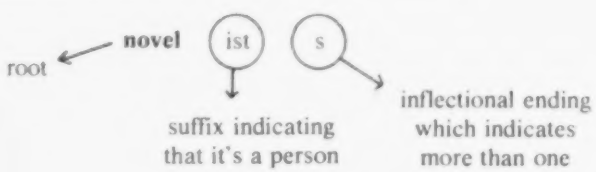
Rule #1: A word can have more than one prefix.



Rule #2: A word can have more than one root.

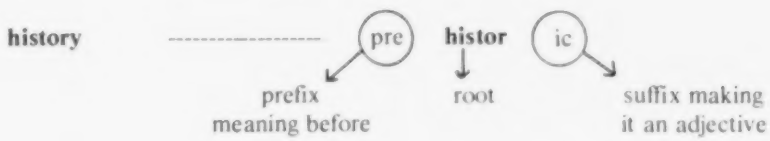


Rule #3: Words can have more than one suffix, or inflectional ending.



Rule #4: When word parts are added to a word, the spelling of the word is often affected.

(a) *Sometimes a final "y" will become an "i" when a suffix is added.*



(b) *Sometimes a final "e" will be dropped to add a suffix or inflectional ending.*

rescue ----------> **rescuing**

(c) *Sometimes you need to double the final consonant when adding a suffix.*

occur ----------> **occurring**

(d) *Sometimes the spelling of the prefix will change, depending on the first letter of the root.*

"In," the word part meaning not, becomes "im" when placed in front of words that begin with the letters "p," "b," and "m." For example, impractical, impossible, improbable.

"In" becomes "il" when placed in front of words that begin with "l." For example, illogical.

"In" becomes "ir" when placed in front of words that begin with "r." For example, irreversible, irrevocable.

Another prefix that changes its spelling is the prefix "con" which means "together," or "with." When "con" is placed in front of words beginning with "b," "p," or "m," *con* becomes "com." For example, commingle, commiserate.

"Con" becomes "col" with words that begin with the letter "l." For example, collaborate.

The prefix "syn" also means "together," or "with." It changes to *sym* at the beginning of certain words. For example, sympathy, synchronize.

(e) *In changing the form of the word, you may need to change a "b" to a "p" before adding "tion."*

subscribe	---------->	subscription
describe	---------->	description
prescribe	---------->	prescription
conscribe	---------->	conscription

NOTE: You need to be flexible when it comes to spelling. Just because the word part isn't spelled exactly as you've learned it, it doesn't mean that you shouldn't try the meaning to see if it will help.

Rule #5: Word parts won't always tell you the meaning of the unfamiliar word.

For example, the word part *pan* means all, but the word pancake does not mean all-cake. The word *pretty* begins with the letters "p," "r," and "e" but doesn't mean "before" anything. The word part *post* means after, but that won't help you in learning the meanings of the words *post office* or *postage stamp*. Sometimes word usage changes throughout the years. The word part *syn* literally means "together, with" and the word *symposium* originally meant "drinking together." Now the word symposium means a formal meeting where people deliver speeches or professional papers.

Rule #6: Many word parts differ by just one letter, so examine the word carefully to determine which word part you're dealing with.

For example, *un* means not, but *uni* means one. *Bi* means two, but *bio* means life. *Di* means two, but *dia* means across. Sometimes it helps to use context clues in conjunction with word parts to determine the meaning of the unfamiliar word.

155 COMMON WORD PARTS

	Prefix, Root, or Suffix	Meaning	Example
1.	a	not, without	atypical, amoral
2.	ambi, amphi	both, two	amphibian
3.	ante	before	antecedent
4.	anthropo	man	anthropology
5.	anti	against	antiaircraft
6.	aqua	water	aqualung
7.	arche	first, ancient, chief	archenemy
8.	archy	rule, government	monarchy
9.	astro	star	astrology
10.	aud	to hear	audible
11.	auto	self	autobiography
12.	bellum	war	belligerent
13.	bene	good, well	benefit
14.	bi	two, twice	bicentennial
15.	biblio	book	bibliography
16.	bio	life	biology
17.	capit	head	decapitate
18.	carn	flesh, meat	carnivore
19.	cede	to yield, go	concede
20.	cent	hundred	century
21.	chron	time	chronological
22.	cide, cise	to kill, cut	insecticide, excise
23.	circum	around	circumference
24.	clud, clus	to close, shut	include
25.	con, com, cor, col	together, with	concurrent
26.	contra	against	contradict
27.	corpus	body	corpse
28.	cosmos	world, universe	cosmonaut
29.	cred	to believe, trust	credibility
30.	crypt	secret	cryptic
31.	cur	to run	recurrent
32.	de	from, down, away	descend
33.	dec	ten	decimal
34.	demi	half	demitasse
35.	demo	people	democracy
36.	derma	skin	dermatologist
37.	di	two	dilemma
38.	dia	across, through	diameter
39.	dict	to speak or say	benediction
40.	digit	finger, toe	digitate
41.	dis	not, no longer, away	dislike

	Prefix, Root, or Suffix	Meaning	Example
42.	diurnalis	daytime	diurnal
43.	dorm	sleep	dormitory
44.	dox	belief	heterodox
45.	duct	lead, take	conductor
46.	dyna	power	dynamics
47.	dys	bad, difficult	dysfunctional
48.	ecto	outside, external	ectoderm
49.	encephal	brain	encephalitis
50.	endo	within	endogamy
51.	e, ex, exo	out from, no longer	exhale, ex-wife
52.	eu	good, pleasant	eulogy
53.	extra	outside, beyond	extraterrestrial
54.	frater	brother	fratricide
55.	gamy	marriage	bigamy
56.	gen	birth, race, kind	geneology
57.	geo	earth, ground, soil	geography
58.	gon	corner	polygon
59.	graphy	write, record, describe	autograph
60.	hemi	half	hemisphere
61.	hetero	different	heterosexual
62.	homo	man, same	homo sapien, homogeneous
63.	hydro	water, liquid	hydrokinetics
64.	hyper	overly, excessive	hyperthyroid
65.	hypo	down, under	hypodermic
66.	in	not, into, within	inaccurate, inhale
67.	intra	within	intrastate
68.	inter	between	intercede
69.	ir, il, im	in, not	immigrate, illogical
70.	iso	equal	isometrics
71.	ism	belief in	theism
72.	ist	person who	atheist
73.	itis	inflammation	bronchitis
74.	ject	to throw	eject
75.	kilo	thousand	kilometer
76.	kinet	movement	kinesiology
77.	logy	study of	archeology
78.	macro	large	macramé
79.	mal	bad, ill, wrong	maladjusted
80.	mania	craze for	pyromania
81.	marine	sea	submarine
82.	mater	mother	maternity
83.	meso	middle	mesoderm
84.	meta	change	metamorphosis

	Prefix, Root, or Suffix	Meaning	Example
85.	meter	to measure	speedometer
86.	micro	small	microscopic
87.	mill	thousand	millenium
88.	mis, miso	bad, wrong, hate	misogamy
89.	mit, miss	to send	transmitter
90.	mono	one	monotone
91.	morph	form	morphology
92.	mort	death	post mortem
93.	multi	many	multiply
94.	mur	wall	intramural
95.	natal	birth	prenatal
96.	neo	new	neonatal
97.	neuro	nerve	neurology
98.	nocturnal	nighttime	nocturnal
99.	non	not	nonviolent
100.	oct	eight	octagon
101.	oid	resembling	humanoid
102.	omni	all	omnipotent
103.	onym	name	patronym
104.	pan	all	panacea
105.	pater	father	paternal
106.	pathy	feeling, disease	sympathy, psychopath
107.	ped, pod	foot, child	pedestrian, pediatrician
108.	penta	five	pentagon
109.	peri	around	periscope
110.	phagus	eater	anthropophagus
111.	phil, philo	love	philosophy
112.	phobe, phobia	fear	claustrophobia
113.	phono	sound	phonograph
114.	photo	light	photograph
115.	pneum	air, lung	pneumonia
116.	poly	many	polygamy
117.	port	carry	porter
118.	post	after	postwar
119.	potent	powerful	impotent
120.	pre	before	predetermine
121.	pro	in favor of, forward	pro-American, project
122.	proto	first in time	prototype
123.	pseudo	false	pseudonym
124.	psyche	mind	psychology
125.	quadra	four	quadruped

	Prefix, Root, or Suffix	Meaning	Example
126.	quasi	semi	quasi-experimental
127.	re	back, again	retype
128.	regi	kingly, royal	regal
129.	retro	backwards	retrospect
130.	scribe	write or record	transcribe
131.	scope	examine	periscope
132.	semi	half, partly	semicircle
133.	soc	people	social
134.	soma	body	psychosomatic
135.	son	sound	sonorous
136.	soror	sister	sorority
137.	spect	to look, see	spectator
138.	sub	under	subway
139.	sui	oneself	suicide
140.	super	above, over, more	supersonic
141.	syn, sym, syl	together, with	synchronize
142.	tele	far, distant	telegraph
143.	terrain	land	terrarium
144.	theo	God	theology
145.	therm	heat	thermometer
146.	trans	across	transcontinental
147.	tri	three	tricycle
148.	ultra	extreme	ultraliberal
149.	un	not	unnatural
150.	uni	one	unique
151.	ven	vein	intravenously
152.	vert	to turn	invert
153.	vid, vis	to see	video
154.	vorous	eating	herbivorous
155.	zoo	animal	zoology

PRACTICING WITH WORDS AND WORD PARTS

Directions: Use the clues in italics to figure out the missing words.

1. Someone who is _____ *judges* people *before* he meets them.
2. If a *prelude* is music played at the beginning of a church service, a _____ is music played *after* the service.
3. _____ skin is the skin *between* your *fingers* or your toes.
4. Someone who is *monolingual* speaks one language. Someone who is _____ speaks *two*. If you can speak *three* you are _____ . If you speak *four* you are _____ .
5. A *benediction* is a blessing; it's to wish someone well. A _____ is a curse; it's hoping that *badness* or evil befalls someone.
6. If *hyperglycemia* is the condition of having too much sugar in the blood, then _____ would be having *too little*.
7. Mormons practice _____ . By religion, the men are allowed to be *married* to *several* women at the same time.
8. A *pentathlon* is an athletic contest involving participation by each contestant in five different events. There are *ten* events in a _____ .
9. A *centenarian* is a person who is 100 years old. What would someone who was in her *eighties* be called?

   _____
10. *Intrinsic* motivation comes from within yourself; _____ motivation comes from *outside*.
11. An *anthropophagus* eats human flesh; a *polyphagus* eats many different kinds of food. What would a creature that eats *dirt* be called? _____
12. An abnormally high fever is *hyperthermia*. *Not* having *enough* body heat would be called _____ .
13. Marriage within one's own tribe or group of people is called *endogamy*. Marriage *outside* one's own tribe or group of people is called _____ .
14. *Psyche* refers to the mind; *somatic* refers to the body. A *psychosomatic* illness is an illness that originates in your mind and consequently affects your body. A _____ illness is an illness that originates in your *body* and consequently affects your *mind*.
15. Something that is *geomorphic* is shaped like the earth. Something that is *zoomorphic* is shaped like _____ _____ . Something that is *theomorphic* is shaped like _____ .
16. If a class consists of students of different ages, we say the class is *heterogeneous* in regard to age. What is it called if the class is composed of people who are all the *same* age? _____
17. _____ is an *inflammation* of a *nerve*.
18. A *bibliophile* is someone who loves books. What would someone who loves Einstein be called?

    _____
19. _____ animals sleep in the *daytime*. _____ animals sleep at *night*.
20. _____ igrade means walking on your *toes*.

PRACTICE FINDING WORDS AND WORD PARTS IN THE DICTIONARY

PART I:

Directions: The word part *phobia* means "fear of." The following is a list of ten common fears. Use your knowledge of word parts to define the following terms. Check the answers you're unsure of in the dictionary.

1. claustrophobia _____
2. anthropophobia _____
3. gamophobia _____
4. pantophobia _____
5. autophobia _____
6. theophobia _____
7. neophobia _____
8. chronophobia _____
9. phobophobia _____
10. demophobia _____

PART II:

Directions: The word part *logy* means "the study of." Using a dictionary, look up the following words and find out what's being studied.

1. anthropology _____
2. archeology _____
3. astrology _____
4. biology _____
5. cryptology _____
6. geneology _____
7. geology _____
8. pathology _____
9. psychology _____
10. sociology _____

PART III:

Directions: The word part *cide* means "to kill." Use a dictionary to discover what things are being killed in the following words.

1. fratricide _____
2. genocide _____
3. homicide _____
4. matricide _____
5. infanticide _____

6. regicide _____

7. sororicide _____

8. suicide _____

9. patricide _____

PART IV:

Directions: The word part *scope* means to "watch, see, or examine." Use a dictionary to discover the meaning of the following words that are unfamiliar to you.

1. autoscope _____

2. chronoscope _____

3. endoscope _____

4. hydroscope _____

5. periscope _____

6. telescope _____

7. thermoscope _____

8. microscope _____

WORKSHEET: PREFIXES, ROOTS, AND SUFFIXES

Directions: Infer the word called for from the following clues:

1. Dictionary definition—newborn, referring to the first month after birth.
   neo meaning "new"
   natalis meaning "to be born" _____
2. Dictionary definition—a woman who rules a family, group, or state.
   mater meaning "mother"
   archy meaning "rule, government" _____
3. Dictionary definition—a harsh or unpleasant sound.
   dis meaning "opposite" or "absence of"
   sonare meaning "to sound" _____
4. Dictionary definition—the belief there is no God.
   a meaning "without"
   theos meaning "God"
   ism meaning "belief in" _____
5. Dictionary definition—a discussion marked by the expression of opposing views.
   contra meaning "against" or "opposite"
   vertere meaning "to turn" _____
6. Dictionary definition—the rebirth of a soul into a new body.
   re meaning "again"
   in meaning "in, into"
   carn meaning "flesh"
   tion a suffix meaning "the act of" _____
7. Dictionary definition—present at birth.
   con meaning "together, with"
   genus meaning "birth, race, or kind" _____
8. Dictionary definition—a mentally ill or unstable person.
   psyche meaning "mind"
   pathy meaning "disease or disorder" _____
9. Dictionary definition—an instrument used with a telescope or microscope for measuring minute distances.
   micro meaning "small"
   meter meaning "to measure" _____
10. Dictionary definition—a false name; a pen name.
    pseudo meaning "false"
    onym meaning "name" _____
11. Dictionary definition—to cut off the head of.
    de meaning "down"
    capit meaning "head" _____
12. Dictionary definition—happening at the same time.
    syn meaning "together, with"
    chronos meaning "time" _____
13. Dictionary definition—to go between two parties to reconcile their differences.
    inter meaning "between"
    cede, ceed meaning "to go" or "yield" _____

WORKSHEET: MATCHING

Directions: Using your knowledge of word parts, match the following lists of words with their definitions.

PART I:

_____	1. decelerate	(a)	having many sides
_____	2. congregate	(b)	to cancel or revoke an order or command
_____	3. prejudice	(c)	excessive size of the feet
_____	4. countermand	(d)	to bring together in a crowd, body, or mass
_____	5. intervene	(e)	decrease in speed of motion
_____	6. multilateral	(f)	that which is written above or on something
_____	7. superscription	(g)	an unfavorable opinion formed beforehand or without knowledge, thought, or reason
_____	8. macropodia	(h)	to come between in action
_____	9. antecedent	(i)	going or being before
_____	10. monomania	(j)	insanity limited to a single subject only

PART II:

_____	1. binocular	(a)	a line connecting points on the earth's surface having the same temperature
_____	2. benefactress	(b)	watchful on all sides; cautious; prudent
_____	3. confluence	(c)	to work with one another
_____	4. depreciate	(d)	a flowing together of two or more streams
_____	5. circumspect	(e)	having two eyes
_____	6. collaborate	(f)	something occurring out of its proper time
_____	7. metamorphosis	(g)	a woman who confers a benefit
_____	8. hydrology	(h)	change of form, structure, or substance
_____	9. anachronism	(i)	to lower the value of
_____	10. isotherm	(j)	a science dealing with water, its properties, laws, distribution, and so on

PART III:

_____	1. circumlocution	(a)	not easily represented by words; of no recognized, definite, or particular class or kind
_____	2. dichromatic	(b)	pertaining to or involving both light and heat
_____	3. pyromania	(c)	referring to a disease prevalent among all the people of a country or continent
_____	4. acrophobia	(d)	morbid dread of high places
_____	5. patronymic	(e)	a persistent impulse to set fires
_____	6. pandemic	(f)	the act of driving forward or onward
_____	7. photothermic	(g)	having two colors
_____	8. dermatoid	(h)	a name derived from the name of a father by adding a suffix or prefix indicating descent
_____	9. nondescript	(i)	resembling skin
_____	10. propulsion	(j)	a roundabout way of speaking

PART IV:

_____	1.	geomorphic	(a)	a new word or phrase
_____	2.	neologism	(b)	a system of secret writing
_____	3.	symbiotic	(c)	government by the immediate direction of God or by priests as representatives of God
_____	4.	astrometry	(d)	resembling the earth in form
_____	5.	cryptography	(e)	without color
_____	6.	theocracy	(f)	contrary to, or differing from, established or accepted doctrines or opinions
_____	7.	diathermy	(g)	pertaining to mutually advantageous living together of two species of organisms
_____	8.	carnal	(h)	relating to or given to crude bodily pleasure or appetites
_____	9.	achromatic	(i)	a medical treatment whereby heat is sent through the tissues of the body
_____	10.	heterodox	(j)	measurement of the positions, motions, and distances of the celestial bodies

PART V:

_____	1.	polyglot	(a)	a citizen of the world
_____	2.	antipathy	(b)	knowing many or several languages
_____	3.	philanthropy	(c)	pertaining to the lungs and stomach
_____	4.	pneumogastric	(d)	the action of amending by removing offensive or objectionable matter, as from a book
_____	5.	innate	(e)	the study of the body's internal clock
_____	6.	expurgation	(f)	an instinctive contrariety or opposition in feeling
_____	7.	neurophysiological	(g)	pertaining to the structure of the nervous system
_____	8.	cosmopolite	(h)	inborn; existing in one from birth
_____	9.	chronobiology	(i)	someone who loves people of the same sex
_____	10.	homophile	(j)	love of mankind

SAMPLE TEST QUESTIONS

Directions: In the blank at the left of the question, write the letter of the definition that best fits the meaning of the italicized word.

_____ 1. A *unicameral* form of government has:
(a) a single legislative body
(b) a senate and a house of representatives
(c) a socialist slant
(d) a democratic slant

_____ 2. Whom do you kill when you commit *homicide*?
(a) a member of the same sex
(b) a man or a woman
(c) your father
(d) a member of your family

_____ 3. If something is *endemic*:
(a) it belongs to a particular group of people
(b) it is widespread
(c) it will last for a long time
(d) it is forbidden

_____ 4. Literally, what does the word *antibiotic* mean?
(a) to kill life
(b) to kill disease
(c) against poison
(d) against life

_____ 5. Which is *bioluminescent*?
(a) fluorescent lights
(b) a firefly
(c) an automobile
(d) a nuclear reactor

_____ 6. *Extrinsic* motivation is:
(a) self-induced
(b) continuous
(c) subliminal
(d) from without

_____ 7. *Phonics* is mainly concerned with:
(a) how letters and words sound
(b) how words are spelled
(c) how words develop
(d) where words come from

_____ 8. If a statement is *ambiguous*:
(a) it could be interpreted in two or more ways
(b) it is untrue
(c) it is short and to the point
(d) it is sarcastic

_____ 9. If a fellow says that a girl is *amorphic*, he means:
(a) she is fat
(b) she has no shape
(c) she doesn't have very high morals
(d) she has a great figure

_____ 10. A *spectator*:
(a) participates
(b) reads
(c) views
(d) writes

_____ 11. To view a *macroscopic* organism, you have to use:
(a) a telescope
(b) a microscope
(c) a periscope
(d) nothing but your eyes

_____ 12. *Teleportation* means to move something:
(a) by using your thought-waves
(b) by use of a picture
(c) by electronic means
(d) a long distance

_____ 13. To speak in *unison* means to speak:
(a) overtly
(b) simultaneously
(c) loudly
(d) frequently

_____ 14. *Graphology* is:
(a) the study of handwriting
(b) the study of maps
(c) the study of pictures
(d) the study of the earth

_____ 15. *Digamy* is:
(a) marriage within a race
(b) being married to two people at the same time
(c) a second marriage after the termination of the first
(d) marriage between two races

_____ 16. If two things are *synergic* they:
(a) are opposites
(b) fight against each other
(c) cooperate
(d) are incompatible

_____ 17. A *pseudomorph*:
(a) is a person who is overweight
(b) is a pen name
(c) has no shape
(d) has a deceptive form

_____ 18. An *endotherm* would be a (an):
(a) warm-blooded animal
(b) inner layer of skin
(c) instrument used to look up a person's rectum
(d) skin disease

_____ 19. If you're a test-*phobe*:
(a) you love tests
(b) you are afraid of tests

_____ 20. The following three periods of the stone age occurred in which order:
(a) Mesolithic, Paleolithic, Neolithic
(b) Paleolithic, Mesolithic, Neolithic
(c) Neolithic, Paleolithic, Mesolithic

_____ 21. If something is *sonorous*, it is:
(a) dead
(b) alive
(c) loud
(d) large

_____ 22. *Diachrony*:
(a) is a medical treatment
(b) is change extending through time
(c) is a problem with two solutions
(d) is a period of time that is divided into two parts

_____ 23. A *grapheme* is:
(a) a map
(b) the unit of a writing system
(c) an individual sound (like a syllable)
(d) a person who writes

_____ 24. To *synthesize* means to:
(a) summarize
(b) change the form of
(c) combine
(d) oppose

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Instructor's Manual for

HOW TO SURVIVE AT COLLEGE

by
Sara Jane Coffman

Fifth Edition

LB9

The following pages contain the answers to the exercises in the textbook *How to Survive at College*. They're provided primarily for use by instructors teaching study skills for the first time who would like something to fall back on. However, once you become familiar with the exercises, you and your students will probably come up with different, and hopefully better, answers in many of the cases. The purpose of the exercises is to provide a learning experience for the student so that he can work through a problem and then describe to you, the instructor, how he arrived at that solution. It is the *process*, rather than the final answer, that we think is important.

Also included in this manual are suggestions for classroom activities, movies, games and tests as well as additional worksheets for students who need extra practice with some of the concepts in the course.

Fifth Edition

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UNIT I: HOW TO SURVIVE THE FIRST FOUR WEEKS

Suggestions for teaching Unit I:

1. Administer the Brown-Holtzman Survey of Study Habits and Attitudes Test (SSHA) to the students in your class. This is a standardized test that will tell you how your students' current study habits and attitudes compare to those of other college freshmen. Information regarding the test can be obtained from The Psychological Corporation, 757 Third Avenue, New York, NY 10017.

   The test is not timed and takes students anywhere from 15 to 45 minutes to complete, depending on how fast they read. To obtain accurate results, you must encourage your students to give honest answers. Assure them that their score will have no bearing on their grade in the course.

   You can score the test yourself (it takes approximately one minute per test to score), and you'll get five pieces of information on each student:

   1. how his current study habits and attitudes compare overall with other college freshmen,
   2. how much of a tendency he has to procrastinate, or put things off,
   3. what his work methods are—i.e. whether or not he knows how to approach an assignment,
   4. what his attitude towards instructors is, and
   5. how badly he wants a college degree (his level of motivation).

   You can use the information in two ways. One, to get a discussion going between you and the student on what his study strengths and weaknesses are, and two, if you give the test again at the end of the semester as a post-test, you'll see if the scores in your class have risen, fallen, or remained the same. If the scores have risen significantly, you can use that as evidence that you're doing something right in your class.

2. Administer the Nelson-Denny Reading Test to determine what grade level (6-15th) your students are reading at. This is a timed test and will give you two separate scores (as well as a total score) for each student. The vocabulary section takes 10 minutes to complete, and the comprehension section takes 20 minutes.

   Information regarding the test can be obtained from the Houghton Mifflin Company, 2 Park Street, Boston, MA 02107. Students need to take the test with a #2 pencil, and the answer sheets can be scored by computer or by hand.

   The reasons for administering a reading test (you may have one that you prefer) are twofold. First, you can identify your poor readers and start to get them some help, and second, you can administer a different form of the test (the Nelson-Denny has four) as a post-test at the end of the course to see if your class has had any effect on your students' vocabulary and comprehension.

3. You need to have some kind of system for giving students who score low on the Nelson-Denny a chance to improve their reading. Put them in a reading course, get them a tutor, or plan to spend time tutoring them yourself. At Jacksonville State University, students enrolled in the Academic Survival Skills class are required to complete 20 RFU cards per semester. RFU (Reading For Understanding) cards have 10 sentences or short passages on them which the student reads and then answers questions on. Students select cards that correspond to the reading level they earned on the Nelson-Denny. They work on the cards at their own pace and can check their answers themselves. Studies at JSU have found that after working with RFU cards for a semester, many students have scored two grade levels higher on a post-test of the Nelson-Denny.

   Information regarding RFU cards can be obtained from Science Research Associates, Inc. (SRA), 259 East Erie Street, Chicago, IL 60611.

4. At some time early in the course, you might want to schedule individual conferences with each of your students to find out about them. Twenty different students may be in your course for twenty different reasons. At these "interviews," you could discuss the student's SSHA results, paying particular attention to their EA subscore—the score that reflects how badly the student wants his degree. A low score here might indicate that the student has no major or is undecided about his major. The best thing you could do with a student with no major is to get him some help finding one. (Studies show that students with no major tend to do worse in college than students who have a major.) See if there's a career development course offered on campus, or take him to a career counselor. During this interview, you could also discuss your students' reading results and Student Information Sheets.

5. Early in the semester you might also want to have your students give short introductory speeches to the class. It usually works best to make the assignment as specific as possible—that is, to tell them exactly what to say. For example, you could have them choose three of the following questions:

1. Tell us your name, then teach us a way to remember it (first name, last name, nickname, or both names).
2. Describe three things that you dislike (and explain why).
3. Describe three things that you like (and explain why).
4. Tell us a story about an experience you've had so far at college (something unusual, something funny, or something we'll identify with).
5. Tell us what animal you are like (and why).
6. Tell us what food you are like (and why).
7. Tell a joke (an appropriate one).

You might want to make questions one and seven mandatory. When making the assignment, give some examples of how students can "teach" their name. Tell them their grade on the speech will be based on how well they taught their name.

Then, during another class period after all of the speeches have been given, ask everyone to take out a sheet of paper and write down all the names they remember. Collect these lists and find out which students were remembered by the most people/least people. This can lead into a discussion of the following points:

1. Why do we remember some people's names and not others?
2. Why do we remember some course information easily and have a difficult time remembering other course content?
3. What can we do to better remember people's names?
4. What can we do to help us remember course information?

6. For objective #1, students have a tendency to not want to do any legwork to complete the Course Information Sheets (pgs. 3-4). Perhaps some words of encouragement from you that they need to complete the *entire* sheet would help when making this assignment.
7. For objective #3, ask your students for copies of their syllabi in other courses and xerox them to start your own file.
8. For objective #4, you might ask a representative from your Dean of Students Office to speak to your class about some of the most common problems they see at your college.
9. For objective #5, you might want to ask one or two professors to speak to your class about their feelings about students. (do they have favorites?, etc.)
10. For objective #6, you might want to ask an academic advisor to speak to your class on how to make out a schedule, how to find out what classes to take, etc.
11. For objective #10, teach the grading system that's used at your university. Be sure to include how to figure "withdraw," "withdraw passing," and "withdraw failing" from a course.
12. For objective #11, if you have your students make up a study schedule, take the time to go over it with them. This exercise probably won't do them much good if they don't discuss it with someone.
13. If you have the funds, I highly recommend you purchase the movie *The Time of Your Life*. It discusses the fundamentals of time management based on the book *How to Get Control of Your Time and Your Life* by Alan Lakein. James Whitmore is the host of this 30 minute presentation. The theme of the movie is that time is life, and if you waste your time, you waste your life. The six suggestions for managing your time better are these:
    1. list your goals, set your priorities
    2. make a daily "to do" list
    3. start with A's, not C's
    4. ask yourself, "What is the best use of my time right now?"
    5. handle each piece of paper only once
    6. do it now

    The movie is aimed at businessmen, so if you choose to use it, you'll need to discuss afterwards how the ideas can be adapted to college students. Information concerning the movie can be obtained from The Cally Curtis Company, 1111 North Las Palmas Avenue, Hollywood, CA 90038.

14. There are several videotapes produced by Dr. Paul Dale at Purdue University on time management and memory techniques that are specifically directed at the problems of college students. Each is approximately 20 minutes long. Information about these videotapes can be obtained by contacting Dr. Dale in the Dean of Students Office, Hovde Hall, West Lafayette, IN 47905.

15. There's a movie you might want to use to introduce the concept of memory called Information Processing. Actor-comedian David Steinberg is the host of the film which utilizes isolated sequences at a large Hollywood cocktail party to illustrate some of the aspects of human information processing. It discusses "mnemonics," "information overload," "memory system," "sensory system," "retrieval strategies," and "problem solving" and is 30 minutes in length. Information about the movie can be obtained from CRM/McGraw Hill Films, Del Mar, CA 92014.

16. One way to teach objective #13 a) is this. Write the following items on the board and give your students a few minutes to memorize them:

electricity	textiles
hogs	beans
oil	sheep
tin	fish
aluminum	

Erase the board, then go on to another activity.

After a period of time, ask your students to take out a sheet of paper and write down the items that were on the board. Give one-half of your class a sheet of paper with the mnemonic FAT BE SHOT on it to help them recall the items. Hopefully, when you compare the results of the 2 groups, the group that was given the mnemonic device will remember more items than the group that was not. (Or devise a similar experiment to prove the effectiveness of using mnemonics.)

17. Another suggestion for teaching objective #13 a) is to divide your students up into small groups and have them make up a mnemonic device to remember the nine planets: mercury, venus, earth, mars, jupiter, saturn, uranus, neptune, pluto. Test them a week later to see if they can remember the mnemonic and the nine planets.

18. The following list of 20 items has been used by some instructors to teach objective #13 b).

carpet	chair	nail	plate
paper	window	typewriter	donut
bottle	book	shoe	car
bed	telephone	microphone	coffee pot
fish	cigarette	TV	brick

Write the words on the board and give your students four or five minutes to make up a story connecting the 20 items. Tell them the items must be learned in order. You might want to ask if there are any skeptics in the class who don't think much of this technique. If you have one or two, let them memorize the list—in order, *without* using a visual image. After five minutes, erase the board. You might want to introduce some interference into this activity by spending a few minutes discussing something unrelated to memory. Then, call on an "unbeliever." Sometimes your skeptic won't be able to recall the entire list, but other times your skeptics will recall the list fluently because they wanted to beat you at your own game. That's O.K. Reinforce them for doing so well, then call on a person or two who made up a visual image. Have them say their entire story outloud and point up some of the strengths of their stories—action, smells, colors, etc.

The next time you meet your class, ask one of the students who memorized the list by rote to recall it. Nine times out of ten they won't be able to. Then call on one of your students who made up a visual image. They probably *will* be able to remember the entire list (or most of it). Use this experiment to point up the effectiveness of using visual imagery vs. using rote memory. It took both groups—visual imagery and skeptics—the same amount of time to learn the information. Only one of the two groups, though, could recall it after a period of time.

19. To teach objective #13 c), have your students—in groups or by themselves—make up a rhyme about their names. This could be done early in the course as an ice-breaking activity to get your students to learn each others' names.

20. To teach objective #13 d), find some information you want your students to learn—perhaps pertaining to the section in the book on "College Terminology" or "Information About Your College." In the past, we've wanted our study skills students at Purdue to learn the 12 different Schools at Purdue, so we taught them by using the alphabet:

Agriculture; Consumer and Family Science; Engineering; Graduate; Health Science; Humanities, Social Science and Education; Management; Nursing; Pharmacy; Science; Technology; Veterinary Medicine.

21. Once you've explained mnemonics and visual imagery to your students using content that you've selected, you need to make sure they understand the two systems well enough to apply them to the content in their other courses. Perhaps you might want to devote a class period or two to having your students bring in their books and materials from their other classes and working on applying these techniques under your supervision and with your feedback.

22. In the section on "How to Survive at College," (pp. 16-19) you might want to give a short lecture on how to dress for bad weather, how to tell if you're sick, how to eat right and how to hasten recovery if you do get sick. Or, if you consider the topics important enough (and if you have the time), ask an expert on these topics to address your class. You could include a nutritionist, a psychologist, and/or a mental health expert.

23. The following are the answers to the activity entitled: Worksheet: College Terminology. (p. 25)

    1. Universities offer advanced degrees (masters and Ph.D.s) as well as bachelor's degrees. Colleges operate only at the undergraduate level (offer bachelor's degrees). Junior colleges have two-year programs.
    2. Ph.D. (doctorate)
    3. Upperclassmen
    4. T.A.
    5. Dr. (*not* doctorate—that's the *degree*)
    6. Students, Administrative Staff, Teaching Staff (or faculty), and Support Staff
    7. 4 years
    8. Administrators
    9. B.S. is more scientifically oriented
    10. M.A. M.S. Ph.D. Ed.S.
    11. Undergraduate—freshman, sophomore, junior, senior
        Upperclassman—junior, senior
    12. Bachelor of Arts
    13. Doctor of Philosophy or doctorate
    14. Full professor, Associate professor, Assistant professor
    15. Academic, social
    16. Leave of absence (usually at one-half salary) for professional enrichment

True-False Questions

1.	F	6.	F
2.	T	7.	T
3.	F	8.	F
4.	T	9.	T
5.	F	10.	T

Practice in figuring gpa's

1.	Jim	1.78
2.	Susie	2.85
3.	John	1.78

(on a 4.00 system)

24. You'll have to adapt the section entitled "Information About Your College" (pp. 27-29) to fit your college, junior college, or university and make up your own answer key to the Worksheet: Information About Your College (p.29)

25. Answers to Sample Test Questions, pp. 41-42.

1.	C	6.	E
2.	E	7.	B
3.	C	8.	C
4.	C	9.	E
5.	B	10.	B

UNIT I TEST
ON SURVIVING THE FIRST FOUR WEEKS

Name _____

PART I: In the following space, write the 20 items that were on the board at the beginning of the period. To get full credit, the items must be listed in the correct order. (20 pts.)

PART II: Write the correct term or answer in the space provided.

1. You have just earned your Ph.D. from a university and have been hired to teach at another college or university. What would your faculty rank most likely be? _____
2. _____ are schools that primarily offer two-year degrees.
3. If you memorize course material by making up a code word to help you recall the material, what kind of memorization technique have you used? _____
4. A student who breaks a rule in his dorm might be put on _____ .
5. _____ is the title given to a professor who remains connected with the school after he's retired.
6. If you learn by repeating a piece of information over and over and over, you're using what kind of memorization procedure? _____
7. _____ is the word that means you have a tendency to put off doing your work.
8. After teaching for several years, sometimes a professor is given a year off to do research, to write, teach, or to take classes somewhere else. What is the official term for this? _____
9. _____ learning is the word for learning a little bit every day.
10. You are being promoted to the rank of full professor next week. Most likely, what is your faculty rank at present? _____
11. The general rule-of-thumb is that you should study _____ hours outside of class for every hour you spend in class.
12. Making up a story connecting a list of items you need to remember is using which memorization technique? _____
13. If you get extremely low grades in all of your classes at the end of a semester, you may be placed on _____ _____ .

14. _____ is the word for learning *more* than you need to know on a topic before you go to take the test.

15. The abbreviation for a doctorate, or doctor of philosophy degree, is _____ .

16. _____ are people who teach at a college or university who do not have their doctorates.

17. A _____ is a document handed out at the beginning of a semester by a professor that tells you what you'll be doing in that course and what the rules and regulations for the course are.

18. Once a professor is granted _____, he can't be fired (except for unusual circumstances).

19. A graduate student who's in charge of teaching an undergraduate class on campus is called a _____ _____ .

20. _____ is the term for when you have a piece of information in your memory, but you just can't get it out when you want to.

PART III: Figure the following student's grade-point-average using the point system used at your college.

Course	Credits	Grade
LS 101	2	A
PE 410	3	B
Bio 200	3	C
Eng 104	4	D
Psyc 120	3	A

ANSWERS TO UNIT I TEST

PART I: Start the test by writing 20 items on the board and giving your students five minutes to memorize them. Then hand the test out.

PART II:

1. assistant professor
2. junior college
3. mnemonic device
4. social probation
5. emeritus
6. rote
7. procrastination
8. sabbatical
9. distributed
10. associate professor
11. 2
12. visual imagery
13. academic probation
14. overlearning
15. Ph.D.
16. instructors
17. syllabus
18. tenure
19. T.A.
20. failure to retrieve

PART III: answer using a 4.00 system: 2.78

UNIT II: HOW TO IMPROVE YOUR LISTENING AND NOTE-TAKING SKILLS

Suggestions for teaching unit II:

1. There's an excellent movie entitled "You're Not Listening" that you might want to use as an introduction to this unit. The following listening problems are discussed in the movie—visual distractions, thought speed, prejudice, having a closed mind, listening with your mouth instead of your ears, and jumping to conclusions. Solutions to those problems are then given. Produced in 1978, it is in color and is 20 minutes long. Information concerning this movie can be obtained from Barr Films, 3490 E. Foothill Blvd., P.O. Box 5667, Pasadena, California 91107.

2. As an introduction to this unit, you might want to give your students the following seventh-grade listening test. Before you begin, your students need to write the following on their papers:

   1. ı
   2. MB
      PB
      SB
   3. Canada X
      U.S.
   4.
   5.

   Then read the following oral directions.

   1. Put a dot on the i.
   2. You're a bull, and you've been away from home for a long time. You return home and you need some love. Who do you go to first? Mama Bull, Papa Bull, or Sister Bull? Circle the answer.
   3. There's been a plane crash on the border between Canada and the U.S. where you see the X on the map. There are six survivors. Where would you bury them?
   4. Write the word Vote.
   5. You are the pilot of an airplane which is flying between New York and Chicago. There are 150 passengers on board. The plane is halfway between the two cities. The carpeting of the plane is done in royal blue and the seats are upholstered in a brilliant red. The hostesses have just finished serving lunch and everything has gone well. The pilot's wife is two years younger than he is and the co-pilot's wife is six years younger than the pilot's wife. How old is the pilot?

Have your students grade their own papers.

Answers:

1. The student should get credit only if he puts a dot *on* the i. (ɨ)
2. Papa Bull. There's no such thing as a female bull.
3. You don't bury *survivors.*
4. The student does not get credit if he *printed* the word.
5. The same age as the person taking the test.

Most of your students probably will not get all five questions correct. Discuss with them why they didn't. They probably answered question #1 in terms of their past experience ("Dot the i.") Is question #2 a fair question if you grew up in the city? Question #3—when we hear the words plane crash, we immediately think of people dying (past experience). Question #4—we answer in terms of what we normally do. And question #5—we're storing so many of the details of the story that we miss the opening phrase. Discuss whether or not this was a fair test of listening ability. What can this test teach us about the difficulties of classroom listening? (e.g. in question #5—if we miss the professor's opening remarks, we may miss his most important point.)

3. Another game to introduce students to the difficulties of getting the message correct is to have them play the distortion exercise (otherwise known as the game of telephone). Ask for volunteers. Send six of them out of the room. Tell the following story to the one student who remained, and have the rest of the class take notes throughout the exercise so they can report what happened. Call your students in from the hall and have each one pass the story on to the next person. When the seventh person has heard the story, have him tell it to you, and give him one point for every piece of information that was in the original message. For example, story #1 has 25 pieces of information.

Story 1

Every fall during football season at State University, the three bronze eagles in front of the Sig Phi fraternity house are mysteriously sprayed with paint. Each year, it costs the Sig Phi's $200.00 to have them restored to their original condition. The University president, now retired, has stated that anyone caught painting the eagles would be expelled from the university.

Story 2

I cannot wait to report to the police what I saw in this accident. It is imperative that I get to the hospital as soon as possible.

The semi truck, heading south, was turning right at the intersection when the sports car, heading north, attempted to turn left. When they saw that they were turning into the same lane, they both honked their horns but proceeded to turn without slowing down. In fact, the sports car seemed to be accelerating just before the crash.

Story 3

A mysterious bearded hitchhiker who keeps disappearing after he thumbs a ride is puzzling highway police. The mystery man always wears shining white clothes or blue jeans, and has been reportedly picked up by scores of motorists along the 500 miles of the New York State Thruway.

He always sits in the back seat, snaps on the seat belt, and talks about religion. Then he literally vanishes, leaving the seat belt still buckled. Motorists said the hitchhiker spoke about the second coming of Christ.

Sgt. Robert Minedkheim said: "I don't believe it, but stranger things have happened."

And a spokesman for the Thruway Authority added: "As far as I'm concerned, this is just another reason for not picking up hitchhikers."

This exercise is excellent to teach objective #5 and show that any time information goes from one place to another three things happen—some of it is lost, some is distorted, and sometimes things are added to it. This should lead you into a discussion of the problem of taking accurate class notes. Then discuss solutions to those problems. (ask questions, sit close to the speaker, use handouts, use abbreviations, etc.)

If time permits, you may want to redo the distortion exercise with a different story, this time having the participants try to send and receive the message as accurately as possible.

4. The following are the answers to the exercise entitled: Unscrambling Sociology Paragraphs (p. 55):

Paragraph D

Socialization is the complex process of social learning whereby an individual internalizes the norms, values, beliefs, and expectations of other society members.

From a societal perspective, socialization is necessary to ensure social order and the continuity of culture from one generation to the next.

The socialization process accounts not only for the likenesses among a society's members, however, but also for some of the differences.

Because each individual participates in a different combination of groups and subcultures, and because each responds to his social environment in his own way, socialization produces a wide range of personality configurations and behavior patterns.

Paragraph B

Every group in which the individual participates serves as an agent of his socialization, but some have a greater influence than others.

The family and the school, for example, have a special mandate from society to train new generations of members—to teach the knowledge, skills, attitudes, values, and general orientations that are needed to function effectively as an individual and group member.

Not all of the learning that takes place in these settings is intended, however, and some of it may run counter to the norms and values that the society formally supports.

Paragraph C

Peer groups have a special importance as agents of socialization during all stages of life, simply because the individual values them so highly as sources of emotional support.

Desire for the esteem of one's close friends exerts a strong pressure for conformity to their standards.

Groups with specialized goals, such as business organizations and the armed services, are often important agents of socialization in adulthood, remolding the attitudes and behavior patterns of the individual so that he will function effectively in a specified role.

What an individual learns in any of these contexts depends on the total pattern of his socializing experiences.

Paragraph E

Socialization proceeds throughout the entire life span as the individual assumes changing roles and encounters changing needs and demands.

Although anticipatory socialization helps people prepare for some of their future roles, often there is very little continuity between one stage of life and the next.

Adolescents, for example, are effectively isolated from adult society by various conditions of modern life and thus develop subcultures of many kinds.

These subcultures play an important part in shaping the values and expectations of young people, but they may be dysfunctional in terms of preparing adolescents for their later roles as adults.

Paragraph A

Adult socialization tends almost inevitably toward discontinuity and conflict, for the individual must move quickly into changing role relationships of fundamental importance.

Job requirements, the marital relationship, parenthood, and so on necessitate major adjustments in orientation.

The processes of socialization by which adults make these transitions are not well understood.

In old age, the loss of many former roles creates an identity crisis and again requires the formation of new habits and attitudes.

Psychiatrists and sociologists are anxious to improve their knowledge of the socialization process in older people in order to learn how personality organization can be maintained through the last years of life.

5. The following outline is one solution to the exercise "Unscrambling The Outline" on page 58. Most students have difficulty with this exercise unless you help them get started with it. Many students spend a great deal of time on it and still don't come up with the following solution. You may want to use this exercise as a teaching tool—even if students don't get the entire outline in correct sequence, point out the parts they got right and the parts of their outlines that don't make sense. Also, some students may turn in a better answer or an answer that makes as much sense as the outline at the top of page 10.

FIRE PREVENTION IN THE HOME

I. Few homes are free from dangerous fire hazards.
   A. Your safety probably is threatened by some of these hazards in your own home.
      1. Storage closets contain cleaning compounds, mops, and paint brushes.
      2. Attics contain piles of clothing and combustible paper.
      3. Basements often contain dangerous piles of trash.
      4. Garages attached to houses present hazards of spilled fuel.
   B. If you like to live dangerously, try this:
      1. Place a blotter soaked in turpentine in a jar of oxygen.
      2. Immediately the blotter will burst into flames.
   C. If you do not have a jar of oxygen around the house, try this:
      1. Place a well-oiled mop in a storage closet.
      2. In a few days the mop will burst into flames.

II. Protection of your home from fire requires three things:
   A. Storage of oil mops, paint brushes, and cleaning compounds in fireproof containers.
   B. Removal of all combustible materials from attic, closets, basement, and garage.
   C. Checking regularly to see that trash does not accumulate.

III. Begin your own clean-up campaign now.
   A. Home clean-up programs show practical results.
      1. A campaign in Fort Wayne helped reduce the number of fires.
      2. Campaigns in Evansville kept insurance rates in a "Class 1" bracket.
   B. You will benefit from the results of such a program.
      1. You will have neat and attractive surroundings.
      2. Your home will be safe from fire.

6. The following are the answers to the worksheet on facts, inferences, and judgements (p. 61).

1. I
2. J
3. I
4. F (change the day to the correct day of the week)
5. I
6. F
7. I
8. I
9. J
10. I
11. J
12. J
13. F
14. J
15. I
16. J
17. I
18. I
19. J
20. I

7. When teaching your students how to draw inferences, you might want to read the following four stories. After each story, to solve the mystery, members of the class can ask you any question they wish as long as the questions can be answered by a *yes* or *no*.

1. Lisa has found Gertrude and Harold dead on her kitchen floor surrounded by water and shattered glass. She also noticed her *pet cat* in the corner of the kitchen *licking its paws!*
   –What happened to Gertrude and Harold?

2. One bright shiny day a nice looking man walked into a bar and ordered a plain glass of water. The bartender brought the glass of water to the man. The bartender then pulled out a gun from beneath the bar and pointed it at the man. The man said, "thank you very much, you have been a great help," and walked out!
   –What actually took place in the bar?

3. A man has been found dead in the sauna of a local health spa. He had been stabbed seven times. The only things that were found inside the sauna were: a small puddle of water, one dead body and a thermos!
   –How was the man stabbed?

4. A sailor walked into a restaurant and ordered raw albatross. The waiter brought it to him, he took one bite out of the raw albatross and ran out of the restaurant and killed himself!
   –Why?

Solutions:

1. Gertrude and Harold are fish!
2. The man ordered the water to cure his hiccups but instead the bartender scared him with the gun.
3. The man was stabbed with a sharp icicle that was kept in the thermos so as to keep it from melting in the sauna.
4. The sailor was once on a deserted island with other fellow crew members from a capsized boat (ship). He refused to eat the crew members who had died on the island, but the others did eat them. Every day he would spot albatrosses flying around the island. The surviving crew members told him they had been catching the albatrosses and eating them raw, so he partook in eating the raw bird also. But all along they really had been eating human flesh. He became so accustomed to eating what he thought was raw albatross that when he was rescued he went to the restaurant and ordered it. After the first bite he realized he hadn't actually been eating raw albatross, but his fellow crew members who had died while stranded on the desert island, so he went out and killed himself.

8. When teaching the section on using abbreviations (objective #12) ask your students to share any abbreviations or techniques they've developed.

9. To teach objective #14, play an audiotape in class and have your students take notes on it. Share your notes with the class afterwards and have them compare their notes to yours. You may need to do this activity more than once, especially for your students who need practice listening to informative material and who need feedback on their notes.

10. Attend a lecture on campus with your entire class and practice taking notes. You could show the value of preparing for a lecture before attending it by dividing your class in half and having half of them skim the chapter in the book that the lecture is going to be based on. When you convene together again as a class, compare the notes of the students who went to the lecture prepared with the notes of the students who attended the lecture "cold." Also, ask the professor for three or four sample test questions that he might ask on the particular lecture that you heard and see if your students can answer them.

11. Answers to Sample Test Questions (pp. 67-68):

1. B
2. A
3. A
4. C
5. B
6. E
7. D
8. B
9. C
10. B
11. A or E
12. either A or B (The answer should probably be B based on the information in this unit, but in Unit III, they'll learn that the answer is A.)

UNIT II TEST ON LISTENING

Part I: Write the words that the following symbols and abbreviations stand for:

1. ℞
2. ppl
3. lit.
4. ♂
5. Ψ
6. etc.
7. pp.
8. w/o
9. x
10. e.g.
11. ∴
12. ≈
13. <
14. //
15. i.e.
16. ♀
17. b/c
18. →
19. ≠
20. @

PART II: Short answer/essay

1. Explain the difference between inductive and deductive reasoning. (5 pts.)

2. List five differences between taking in information by listening vs. taking in information by reading. (5 pts.)

3. What was the purpose of the distortion exercise? (What did we learn from it?) (5 pts.)

4. Discuss how we can *use* (in a practical sense) what we learned from the distortion exercise. (5 pts.)

5. Define the term "thought speed." (5 pts.)

6. Explain how a student in a lecture situation can use his thought speed wisely. (5 pts.)

7. Explain the differences between facts, inferences, and judgements. Give an example of each. (10 pts.)

8. List five ways you can pick out the most important ideas in a lecture. (5 pts.)

Answers to Unit II Test on Listening

PART I

1. drugs, prescription
2. people
3. literature
4. man
5. psychology
6. etcetera (& so on)
7. pages
8. without
9. time or times
10. for example
11. therefore
12. approximately
13. less than
14. parallel
15. in other words
16. female
17. because
18. therefore
19. not equal to
20. at or per

UNIT III: HOW TO READ A COLLEGE TEXTBOOK

Suggestions for teaching Unit III:

1. There is a short (10-minute), black and white 16mm film entitled "How to Read a Book" produced by Coronet that teaches the different parts of a book. The plot of the movie is that there are two college students who read the same book. The student who used a *system* for reading gets more out of the book than the student who doesn't. Produced in 1964, this movie is so bad that it's good. You might try to find or rent a copy of it.
2. A 20-minute videotape on the SQ3R method of reading is available from Dr. Paul Dale, Dean of Students Office, Hovde Hall, Purdue University, West Lafayette, IN 47905.
3. To teach objective #4 (the activity on pages 75-76), you may want to have more control over this exercise by prescribing the textbooks that you want your students to use. (It might make the grading of this activity a little easier for you.)
4. Answers to Surveying the Article "What Stress Can Do To You" (pp. 77-78):
   1. Fortune magazine (designed for American businessmen)
   2. Walter McQuade and Varian Ayers Knisely
   3. 1972 (discuss whether or not this article was published recently enough to be credible)
   4. Definition of stress
      symptoms of stress (physical and mental)
      solutions to the problem of stress (how to deal with it)
      can stress be good for you?
      a discussion of whether women in our society have as much stress as men
   5. how college students can most effectively handle stress
   6. smoking
      lack of exercise
      fatty diet (eating cholesterol)
   7. All of a sudden there's a lot of evidence to show that job stress is a more important factor in getting you to have a heart attack than whether or not you smoke, eat poorly, and don't exercise.
   8. a) American businessmen
      b) the body's involuntary reactions to the demanding life we Americans choose
   9. NO. They are written for attention purposes only—do not serve as a summary of subsequent paragraphs.
   10. NO. Journal titles won't be on the test. Many words are italicized here merely for emphasis, not because they are key words.

11. entire first paragraph. 8½ year study. 3,000 males. competitive Type A. relaxed Type B. Type A's have more heart attacks.

12. first paragraph

13. NO. Not a summary. Doesn't match up with what the advance organizer says.

14.

Type A	**Type B**
prone to have heart attacks	easy-going
ambitious	has fun
competitive	socializes
drives himself to get things done	
restless	
serious	
perfectionist	

15.

16. a) psychosomatic--bodily symptoms due to mental conflict. Your mind convinces your body that it's sick.
    b) ubiquitous—widespread, constantly encountered, common
    c) GAS—the body's reaction to stress. At first, the body fights off the stress, but eventually it gets tired and the body starts to deteriorate.
    d) antistress—*anti* means opposed to, against. Antistress hormones fight stress.
    e) hypochondriacal—depression often centered on imaginary physical ailments.

17. See advance organizer. According to this article, if you're an American businessman who has a Type A personality, you're much more prone to have a heart attack than your counterparts—relaxed Type B's—even if *they* smoke, have poor diets, have a history of heart disease in their family, and don't exercise.

5. After you survey the stress article (and this activity seems to work best if you go through and survey the article step-by-step with your students), divide them into small groups and have each group write five test questions that a professor might put on a test of this article. This exercise will give your students practice both in reading and in predicting test questions.

6. Another use of the stress article is to have your students go through and practice their underlining skills.

7. The following are some of the signal words you should have circled in the paragraph on page 88:

   This follows from . . .
   However . . .
   if, then . . .
   Thus . . .
   if . . .
   But . . .
   if . . ., then . . .

8. Answers to the exercise "Practice Finding Signal Words and Determining an Author's Pattern of Organization" (pp. 89-91):

   1. circle *why, because, before, now, then, finally, the effects* (key signal words—why, because, the effects) answer: C—cause and effect
   2. circle *but, one of the following three, another, also* answer: A (listing of three kinds of maps—the political, the physical, and the special purpose map)
   3. circle *because, when* answer: C—cause and effect
   4. circle *on the other hand* answer: D—comparison-contrast
   5. circle *first, then, after* answer: B—time-sequence (You must wash your hair in a specific order.)
   6. circle *also, by bribing, on the other hand, while, when, soon* answer: D—comparison-contrast (The first paragraph describes the upper classes, the second paragraph describes the common people. Key signal words: on the other hand)
   7. circle *because of, (in order to) earn, often, only if* answer: C—cause and effect

8. circle *the most immediate problem, however, besides, since, three, one, second, third, another evil, instead, also, other serious problems, however* answer: A—listing (Check the subheading—it gives you a clue as to the pattern—The Problems of Power.)

9. circle *a generation later, 108 B.C., instead of, thus, also, in 88 B.C., during which, finally, now, after, Sulla's death, while consul in 58 B.C.* answer: B—time-sequence

9. It might help your students' understanding of signal words if, after they practice identifying them in other people's writing, they write some paragraphs themselves demonstrating the use of signal words.

10. One activity when studying author's tone (objectives #10 and 11) is to have your students bring in five or six different newspaper articles describing a specific event or happening, and have them compare and contrast the stories.

11. Perhaps the best way to teach author's tone is to have your students find examples of the different author's tones and bring them to class. (Use these examples to start your own file.) This is not an easy task. What will seem like a sarcastic (or critical or formal or even entertaining) piece of writing to one person will not hit the next person as such. Be extremely careful you don't get into trouble when you test your students on author's tone. Testing them at the literal level (e.g. matching a tone with its definition) is no problem. But you can run into problems if you put examples of different tones on your test for your students to identify, and they disagree with you. This is an area where people's backgrounds, experiences, and senses of humor differ, and you won't always reach consensus. (That's all right—at least you will have exposed them to the overall idea of author's tone.)

12. When teaching the section on How to Increase Your Reading Speed, have your students figure their reading rate using the procedure that's given.

13. Answers to Sample Test Questions (pp. 97-98):

1. E	7. C
2. A	8. B
3. B	9. E
4. D	10. E
5. C	11. D
6. C	12. A

Suggestions for teaching inferential thinking (Units II, III and IV)

1. As a study skills instructor, perhaps one of your biggest challenges is to teach your students to draw inferences when they listen, read, and take tests. There are two suggestions for activities you can use to teach inferential thinking. One would be to give your students the Davis Reading Test. This is a standardized test of college reading ability and has short passages for students to read. It's unique because most of the questions must be answered at the inference level. (The second best answer in most cases is a literal answer.) Having your students take this test will give them excellent experience both at drawing inferences and practicing their test-taking skills. You might want to have your students take the test (or portions of the test) individually, then put them in small groups to come up with group answers. Then use the test as a teaching tool—what *are* the correct answers and *why*. Information regarding the test can be obtained from the Psychological Corporation, 304 East 45th Street, New York, NY 10017.

2. Another suggestion for teaching inferential thinking is to have your students read a novel while they're in your class. If you don't have a lot of time to devote to having your students read a book, you could pick something that's short. Adventure/spy stories work well. One book that's been used successfully is *The Boys From Brazil* by Ira Levin. The book is fast-paced, is excellent for teaching context clues, and makes the reader stop and guess at what's happening. It makes for excellent class discussions—what happened in this paragraph? After reading the book, you could show your class the film *The Boys From Brazil* which—even though it's a good movie—is disappointing because the action is all at the literal level. The book could also lead to a library assignment—have your students look up book reviews of the book you read to see what the critics said about it. If you wanted to spend even more time teaching your students to use the library, you could have each student choose a topic from the book he read and do a research paper/report on it.

UNIT III TEST ON READING A COLLEGE TEXTBOOK

PART I: Fill in the blanks. Parts of a book and SQ3R.

1. This is an alphabetical list of the specific topics that appear in the book and the page numbers that those topics can be found on. _____
2. An author has additional information that he wants to put in his book but he doesn't want to interrupt the text. Name two logical places he could put it. _____ _____
3. This is where an author thanks the people who helped him. _____
4. This is the section of the book that contains a list of the titles of the books and articles where the author got his information. _____
5. This is a dictionary which lists key words used in the book and how the author wants to define them. _____
6. This is a personal letter from the author telling the reader why he wrote the book. _____
7. This is the page that tells you when the book was published. _____
8. This is an outline of important words used in the chapter. It's usually in different type face than the title of the chapter or the text, and it's usually located between the title and the text. _____
9. This is a paragraph located at the end of a chapter that gives you a review of the main points that were covered. _____
10. This is what a publisher does to tell the reader what the important words in a chapter are. _____
11. This is an overview of a chapter which *precedes* the chapter. It is usually in sentence/paragraph form, is in different type face than the title or the text, and is located between the title and the text. _____
12. This is how the author and the publisher tell you what the most important *ideas* in a chapter are. _____
13. You usually make your questions (step two of SQ3R) out of what part of the chapter? _____
14. This is the page that the title, author, and publishing company appear on. _____
15. This is a sentence found immediately under a chart or graph that summarizes what's important. _____
16. "At the completion of this unit, the students will be able to . . ." is an example of what? _____ _____
17. The fourth step of the SQR, _____ , is where you should tell your friends about what you've read.

PART II: Short answer/essay

1. List the steps you'd use to survey a chapter in a textbook. *Be specific.* (25 pts.)

2. What is the difference between the signal words "first, second, and third" when they're used in a listing pattern of organization and when they're used in a time-sequence pattern? (5 pts.)

3. Explain how to draw an inference. Why is it a necessary skill for a reader? (10 pts.)

4. Describe some of the characteristics of formal writing. (10 pts.)

5. List five signal words that would fall in the category of cause and effect signal words. (5 pts.)

Answers to Unit III test:

PART I:

1. index
2. footnotes, appendix
3. acknowledgements
4. bibliography
5. glossary
6. preface
7. copyright page
8. structured overview
9. summary
10. italicizes them
11. advance organizer
12. subheadings, objectives, study questions
13. subheadings
14. title page
15. caption
16. objective
17. recite

UNIT IV: HOW TO IMPROVE YOUR TEST-TAKING SKILLS

Suggestions for teaching Unit IV:

1. Have your students bring in some of the tests they've taken recently and go over them with you. See if you can find any characteristics or patterns to the test. For every question the student missed, have him explain why he thinks he missed it and what he can do in the future to get a question like that correct.
2. Answers to "How to Handle a Multiple Choice Test" (pp. 103-105):
    1. A
    2. C (use word parts to help decode the word recidivists: re means again)
    3. C (has course terminology in it)
    4. C (A would be the second best answer)
    5. A
    6. D
    7. A
    8. A (Here's an example of the correct option having a 100% word in it. Also, be sure to teach that some stems will ask for a specific answer and some stems will want the broadest answer.)
    9. A
    10. C or D
3. Answers to "Practice True-False Questions" (p. 107):
    1. F (discuss the words *by definition, all, sub, are (=),* and *counter*)
    2. T
    3. F
    4. F
    5. F
    6. T (this makes sense)
    7. T
    8. T (this makes sense)
    9. F
    10. T (has course terminology)

4. Answers to "Practice Multiple Choice Questions: Sociology" (pp. 109-110):

1. E	6. D
2. C	7. B
3. D	8. C
4. C	9. D
5. D	10. B

For this exercise, you might want to put your students into groups and have them come up with the answers as a group.

5. Answers to the Little Red Riding Hood exercise (p. 112): (This is another exercise that works well in small groups.)

LEVEL I: A and D

LEVEL II: C and D (Discuss the differences between the words *naive* and *trusting*. Is one a subset of the other?)

LEVEL III: A and B (Discuss who the typical audience is for fairy tales. Why do mothers tell their children fairy tales?)

6. Answers to the exercise *The Road Not Taken* by Robert Frost (pp. 113-114):

A.
1. two
2. yellow
3. he couldn't take both roads
4. as far as he could—to where it bent in the undergrowth
5. grassy, wanted wear (discuss what this means)
6. worn them about the same
7. morning
8. black
9. way
10. ever come back
11. with a sigh
12. for a long time
13. the one less traveled

B.
1. careers; paths of life
   poet vs. teacher
   choice between two lovers
2. the future
3. adventure
   curiosity
   rooting for the underdog
4. important—still a young man—has a lot of options open to himself—when you're young you can take more risks, have fewer obligations, more energy
5. sad sigh, happy sigh, sigh of relief
   it's hard to make decisions
   sometimes you can't have both things that you want
   sometimes after making a decision you wonder if you made the right choice

C.
1. don't always follow the crowd
2. you make decisions all your life
3. least traveled—mountain climbers, doctors, creative people, writers, actors, people who are their own people
4. when you're older, you can't go back and change things, you have to live with things the way they are; your health isn't as good; you have a family, commitments, etc.

7. Answers to "Answering the Three Levels of Test Questions" (pp. 115-117):

   1. D
   2. D
   3. D
   4. A
   5. C
   6. B

8. A way to give your students practice in taking an oral test will be presented in Univ V.

9. The only way to teach objective #11 is to have your students actually write essays—preferably in class so they can get the feel for writing in a classroom setting. One question you might use is this: Contrast the problems of the students who sit in the front of a classroom with the problems of students who sit in the back. Very few of your students will answer the question correctly. Their tendency will be to state the advantage of sitting in the front of the classroom with the disadvantage of sitting in the back. This question is a good teaching tool because you'll demonstrate how easy it is to answer the wrong question.

10. Answers to Worksheet: Essay Exam Directions (p. 123):

    1. D
    2. K
    3. I
    4. F
    5. H
    6. A
    7. L
    8. G
    9. A
    10. B
    11. E
    12. J

11. Answers to Grading Essay Answers (pp. 126-128):

    Student W: A or B
    Student X: A or B
    Student Y: F
    Student Z: F

12. Answers to Sample Test Questions (pp. 129-130):

    1. C
    2. A
    3. E
    4. C
    5. A
    6. B
    7. D
    8. B
    9. C
    10. A
    11. A, C, E
    12. D

UNIT IV TEST ON TEST-TAKING

PART I: In the following groups of statements, circle the letter of the statement that is true. If all of the statements are true, circle the letter of the statement that is true more often. (or most often) (2 pts. apiece)

1. A. Definitions of words are usually *literal* questions.
   B. Definitions of words are usually *interpretive* questions.
2. A. After you finish a multiple choice test, if there's time, you should go back and change answers that look wrong.
   B. After you finish a multiple choice test, you probably should not go back and change any answers.
3. A. "Would be" is a *signal* word.
   B. "Would be" is a *weak* word.
   C. "Would be" is a *100%* word.
4. A. *Good* students pad their essay answers.
   B. *Poor* students pad their essay answers.
5. A. One purpose of tests is to discriminate among people.
   B. Tests should not be used to discriminate among people.
6. A. The halo effect can occur with *objective* tests.
   B. The halo effect can occur with *subjective* tests.
   C. The halo effect can occur with *both* objective and subjective tests.
7. A. "Without a doubt" is a *signal* word.
   B. "Without a doubt" is a *weak* word.
   C. "Without a doubt" is a *100%* word.
8. A. The words "we can conclude from this" in a stem tell you that the question is an *applicative* one.
   B. The words "we can conclude from this" in a stem tell you that the question is an *interpretive* one.
9. A. Enthusiasm will help a student taking an *oral* test.
   B. Enthusiasm will help a student taking an *open book* test.
10. A. In a multiple choice test, if you have to guess, you should go with the *shorter* option.
    B. In a multiple choice test, if you have to guess, you should go with the *longer* option.
11. A. It can be helpful to substitute an abstract term in place of a concrete one if you're having trouble understanding the stem of a multiple choice question.
    B. It can be helpful to substitute a concrete term in place of an abstract one if you're having trouble understanding the stem of a multiple choice question.
12. A. "Almost always" is a *signal* word.
    B. "Almost always" is a *weak* word.
    C. "Almost always" is a *100%* word.
13. A. To understand a poem, you need to read at the *literal* level.
    B. To understand a poem, you need to read at the *interpretive* level.
    C. To understand a poem, you need to read at the *applicative* level.
14. A. If you have to guess at a multiple choice question and all of the options are numbers, it's probably wise to eliminate the *first* and *last* options.
    B. If you have to guess at a multiple choice question and all of the options are numbers, it's probably wise to eliminate the *highest* and *lowest* numbers.
15. A. In an essay answer, when you *criticize* something, you look mainly at the things that need to be improved.
    B. In an essay answer, when you *criticize* something, you look at both the good and the bad.
16. A. It would be worse (in a multiple choice test) for there to be an unfamiliar word in the *stem*.
    B. It would be worse (in a multiple choice test) for there to be an unfamiliar word in the *correct option*.
17. A. When taking an essay test, it's more important to know *specific details* rather than the main concepts.
    B. When taking an essay test, it's more important to know the *main concepts* rather than specific details.
18. A. In an essay answer where you're *evaluating* or *criticizing* something, you can feel free to give your own opinion.
    B. In an essay answer, you should *never* give your own opinion!

19. A. Tests serve as *internal* motivation for students to keep up with their work.
    B. Tests serve as *external* motivation for students to keep up with their work.

20. A. "Good" is a *weak* word.
    B. "Good" is a *100%* word.

21. A. If there is a specific name, date, or place in the stem, the answer is probably not *"all of the above."*
    B. If there is a specific name, date, or place in the stem, the answer is probably not *"none of the above."*

22. A. The word *compare* in the directions to an essay test tells you to write both similarities and differences.
    B. The word *compare* in the directions to an essay test tells you to write *only* the similarities.

23. A. According to the text, on an essay test, you should start with the questions that you know the answers to best.
    B. According to the text, on an essay test, you should start with the questions that are worth the most points.

24. A. A short answer test is a test of *recall.*
    B. A short answer test is a test of *recognition.*

25. A. If you have one option (in a multiple choice test) that is specific and one option that is broad, go with the one that is *specific.*
    B. If you have one option (in a multiple choice test) that is specific and one option that is broad, go with the one that is *broad.*

26. A. Students who prepare for an essay test usually do well on multiple choice tests.
    B. Students who prepare for multiple choice tests usually do well on essay tests.

27. A. A "matching" test is a test of *recall.*
    B. A "matching" test is a test of *recognition.*

28. A. The biggest problem students have when taking essay tests is not being able to budget their time.
    B. The biggest problem students have when taking essay tests is not answering the question that was asked.

29. A. When you "change voice" when writing an essay answer you change from one personal pronoun to another.
    B. When you "change voice" when writing an essay answer you change verb tense.

30. A. The phrase "is likely to be" is a *100%* word.
    B. The phrase "is likely to be" is a *weak* word.

Answers to Unit IV test:

1.	A	16.	A
2.	B	17.	B
3.	C	18.	A
4.	B	19.	B
5.	A	20.	A
6.	A	21.	B
7.	C	22.	B
8.	B	23.	B
9.	A	24.	A
10.	B	25.	B
11.	B	26.	A
12.	B	27.	B
13.	B	28.	B
14.	B	29.	A
15.	B	30.	B

UNIT V: HOW TO IMPROVE YOUR WORD ATTACK SKILLS

Suggestions for teaching Unit V:

1. Answers to "Practice Using the 11 Ways to Figure Out the Meanings of Unknown Words" (pp.137-139):

1. use chopsticks
   skillful, skilled, able to
2. #5, punctuation clues
3. all together
   #7, word: *their*
4. when they do something wrong
   verb – past tense
   yelled at
5. the international news agency
6. adjective
   punctual
   yes
7. not
   nobody
8. rich, wealthy
9. they can't believe what's happening
   adverb
10. #5, punctuation clues
    not real
11. strong, powerful
    a drink
12. able to be carried
    word parts – port means to carry
13. flawlessness, not capable of error
    accuracy
14. similar, the same as
    analogy
15. roundabout
    he didn't answer directly
16. into the past
    yes!
17. not able to be heard
    voice
    audible
18. an alias
    spies
19. order, sequence
    put them from first to last
20. writing
21. choice, problem
22. thrown out
23. range, scope, from one end of the spectrum to the other
24. adjective
    clever, bright, witty, sharp
25. lazy
    clearly
26. sneaky
    hide
27. unclear
    two or both
28. obliged, obligated, destined, forced, prone
29. friendliness
30. woman-hater

2. When teaching the section on word parts (pp. 141-146), one method that has worked well has been to have the students buy 155 three-by-five index cards and write the word part on the front of the card and the meaning on the back. They can start with 25 cards at a time, choosing the word parts that are easiest for them to remember, and add 25 cards on a regular basis. Once the student has memorized the meanings of all 155, he must look at each card and say its meaning aloud to you in under five minutes. (The time limit is imposed to ensure that the student not only knows the meaning, but can recall it fluently. With no time limit, students may take up to 30 minutes taking this test.) This is a good way to give your students practice in taking an oral test.

3. Answers to "Practicing With Words and Word Parts" (p. 147):

1. prejudiced
2. postlude
3. interdigital
4. bilingual, trilingual, quadralingual
5. malediction
6. hypoglycemia
7. polygamy
8. decathlon
9. octogenarian
10. extrinsic
11. geophagus
12. hypothermia
13. exogamy
14. somatopsychic
15. an animal, God
16. homogeneous
17. neuritis
18. Einsteinophile
19. nocturnal, diurnal
20. digitigrade

4. Answers to "Practice Finding Words and Word Parts in the Dictionary" (pp. 149-150):

PART I:

1. being shut in
2. men, people
3. marriage
4. everything
5. oneself
6. God
7. new things
8. time
9. fear
10. people, crowds

PART II:

1. mankind
2. ancient civilizations
3. stars
4. life
5. secrets
6. race of people that you came from
7. earth
8. disease
9. the mind
10. people

PART III:

1. brother
2. a race of people
3. another person
4. mother
5. a baby
6. a king
7. sister
8. oneself
9. father

PART IV:

1. oneself
2. time
3. something inside your body
4. water
5. around
6. far distances
7. heat, temperature
8. small things

5. Answers to "Worksheet: Prefixes, Roots, and Suffixes" (p. 151):

1. neonatal
2. matriarch
3. dissonance
4. atheism
5. controversy
6. reincarnation
7. congenital
8. psychopath
9. micrometer
10. pseudonym
11. decapitate
12. synchronous
13. intercede

6. Answers to "Worksheet: Matching" (pp. 153-154):

I.		II.	
1.	E	1.	E
2.	D	2.	G
3.	G	3.	D
4.	B	4.	I
5.	H	5.	B
6.	A	6.	C
7.	F	7.	H
8.	C	8.	J
9.	I	9.	F
10.	J	10.	A

III.		IV.		V.	
1.	J	1.	D	1.	B
2.	G	2.	A	2.	F
3.	E	3.	G	3.	J
4.	D	4.	J	4.	C
5.	H	5.	B	5.	H
6.	C	6.	C	6.	D
7.	B	7.	I	7.	G
8.	I	8.	H	8.	A
9.	A	9.	E	9.	E
10.	F	10.	F	10.	I

7. Answers to "Sample Test Questions" (pp. 155-157):

1.	A	13.	B
2.	B	14.	A
3.	A	15.	C
4.	D	16.	C
5.	B	17.	D
6.	D	18.	A
7.	A	19.	B
8.	A	20.	B
9.	B	21.	C
10.	C	22.	B
11.	D	23.	B
12.	D	24.	C

UNIT V TEST ON WORD PARTS

Name _____

PART I: Write the correct answer, word, or word part in the blanks.

1. If you *promote* someone, you literally send him where? _____
2. The study of the *mind* in relation to the study of life is _____ biology.
3. In two days the dead fish were _____ odorous. (*bad*-smelling)
4. When you *generate* an idea, literally what do you do? _____
5. The *antithesis* of what you want would be _____
6. A flower that pollinates itself would literally have self-marriage. What word means self-marriage?

   _____
7. A *false foot* on an amoeba is called a _____
8. If they say on the news that someone is going to get *bipartisan* support from Congress in his nomination to be the new Secretary of State, what does that mean? _____
9. If a word ends in "ness," what part of speech is it? _____
10. What is the literal meaning of the word *doxology?* _____
11. What is the word for "to *feel together* or with?" _____
12. What two forces are studied in photothermics? _____
13. If a word ends in "ly," what part of speech is it? _____

PART II: Write the correct answer, word, or word part in the blanks.

1. What does an *anthropophagus* eat? _____
2. If you multiply something by *eight*, you _____ uple it.
3. A _____ directional microphone picks up sound from only *one* direction.
4. When a secretary *writes across* from a set of symbols to words we say she _____ her dictation.
5. _____ is the fear of animals.
6. What two forces are studied in *thermodynamics?* _____
7. What does the word *biocide* mean? _____
8. A _____ clast is someone who destroys *books.*
9. How many alternatives do you have in a *dilemma?* _____
10. The word part *dyna* means _____
11. The word *anonymous* literally means what? _____
12. What do you know about someone who is *hydrophilic?* _____
13. If you are _____ dox, you hold unorthodox opinions or doctrines. (*different*)
14. Name a state or country with *isothermal* weather. _____
15. A *hypogeum* is a part of an ancient building. Where would you look for the hypogeum?

    _____
16. What should happen to the volume when you're playing a piece of music and you come across the term *"decrescendo?"* _____

17. The word _____ acious means that you have a huge appetite. *(eater)*

18. What is the difference between *eu-stress* and *distress?*

_____

_____

19. What is the difference between being *miseducated* and being *uneducated?*

_____

_____

20. A baby who is born with a head that's too *small* would suffer from:

_____ encephalitis.

21. If something is _____, it's easily carried.

22. Morphology is the study of a plant's _____

23. A disease that is going to last for a long period of time is said to be: _____

24. What would *misoneoism* be? _____

25. A society that is run by *mothers* (or women) is a _____ iarchy.

26. If you speak *five* languages, you are _____ lingual.

27. A democracy is rule by _____

28. A *geocentric* person's main interest is in _____

29. How many people rule in a *decemvirate?* _____

30. Name something that happens *quadrennially.* _____

31. If you are crazy about *sound,* you suffer from _____ mania.

32. A _____ dont is an animal with exceptionally *large* teeth.

33. The word part *cosmos* means: _____

34. If two roads *converge,* what do they do? _____

35. If a dog had to have one of his legs amputated, he would be a three-legged animal. What word means three-legged?

_____

36. To speak *badly* of someone would be to _____ ign them.

37. What would a Nazi-phobe be? _____

38. The word *heterogeneous* means different what? _____

39. If you are *born* in a certain town, you are called a what? _____

40. Some diseases are *psychogenic.* What does that mean? _____

41. What do the following word parts mean?

_____	a)	pneum	_____	g)	carn
_____	b)	vert	_____	h)	onym
_____	c)	bellum	_____	i)	video
_____	d)	kilo	_____	j)	tele
_____	e)	cred	_____	k)	mit
_____	f)	proto	_____	l)	extra

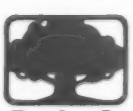
Answers to Unit V test:

PART I:

1. forward, or up
2. psychobiology
3. malodorous
4. give birth to it
5. the opposite
6. suigamy or autogamy
7. pseudopod
8. he'll get support from the Republicans and the Democrats
9. noun
10. study of beliefs
11. sympathy
12. light and heat
13. adverb

PART II:

1. people
2. octuple
3. unidirectional or monodirectional
4. transcribes
5. zoophobia
6. heat and power
7. to kill life or cut life
8. biblioclast
9. 2
10. power
11. with a name
12. loves water
13. heterodox
14. Hawaii
15. basement
16. play more softly
17. voracious
18. good stress and bad stress
19. badly or wrongly educated and not educated at all
20. microencephalitis
21. portable
22. shape or form
23. chronic
24. hatred of new things
25. matriarchy
26. pentalingual
27. the poeple
28. the earth
29. 10
30. presidential elections
31. phonomania
32. macrodont
33. universe
34. come together
35. triped
36. malign
37. someone who hates Nazis
38. types or kinds
39. native
40. they've been given birth in your head
41. a) air
    b) to turn
    c) war
    d) thousand
    e) belief
    f) first in kind
    g) flesh
    h) name
    i) picture
    j) far, distant
    k) to send
    l) over, above



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